

**28<sup>th</sup> Annual**

# Recidivism Evaluation of the Colorado Division of Youth Services

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*Regarding Committed Youth*

*Discharged in Fiscal Years*

*2015-16,*

*2016-17,*

*&*

*2017-18*

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September 15, 2020



**COLORADO**  
**Division of Youth Services**  
Office of Children, Youth & Families

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## EXECUTIVE SUMMARY

Annually, on July 1<sup>st</sup>, the Colorado Department of Human Services (CDHS or Department) publishes the results of a comprehensive analysis and review of juvenile recidivism for youth discharged from the Division of Youth Services (DYS or Division) in the preceding fiscal years.

### **YOUTH STUDIED**

Recidivism rates were calculated for three unique cohorts of discharged youth who were followed for one, two, and three years post-discharge from DYS. The Division defines recidivism as the adjudication or conviction of a new misdemeanor or felony offense within a specified time period.

- Fiscal Year 2017-18: Three hundred seventy-seven (377) youth discharged from DYS. Among these discharged youth, 84% were male, and 16% were female. This cohort was used to determine a one-year recidivism rate.
- Fiscal Year 2016-17: Four hundred forty-two (442) youth discharged from DYS. Among these discharged youth, 86% were male, and 14% were female. This cohort was used to determine a two-year recidivism rate.
- Fiscal Year 2015-16: Four hundred forty-five (445) youth discharged from DYS. Among these discharged youth, 86% were male, and 14% were female. This cohort was used to determine a three-year recidivism rate.

### **ANALYSIS COHORT**

In an effort to combat the challenges associated with a shrinking population of youth who discharge from DYS annually, three years of data were combined to create a single, larger one-year post-discharge cohort. Specifically, each of the youth in the one-year post-discharge cohort for Fiscal Years (FY) 2015-16, 2016-17, and 2017-18 were combined to form a single Analysis Cohort of 1,264 youth. By combining these three cohorts into a single, larger cohort, some of the challenges presented by a shrinking population size were ameliorated and sufficient statistical power was generated in the analyses to detect significant between-groups differences.

- Analysis Cohort: One thousand two hundred and forty-five (1,245) unique youth<sup>i</sup> discharged from DYS between FY 2015-16 and FY 2017-18. Among these unique discharged youth, 85% were male and 15% were female, a ratio that has remained stable over several years. This cohort was used for the majority of the analyses discussed throughout the report.

## **RECIDIVISM RATES**

### *One-year recidivism rate*

For youth who discharged in FY 2017-18, **41.1%** (155 out of 377 youth) were guilty of one or more recidivist acts within one year of discharge from DYS.

### *Two-year recidivism rate*

For youth who discharged in FY 2016-17, **55.7%** (246 out of 442 youth) were guilty of one or more recidivist acts within two years of discharge from DYS.

### *Three-year recidivism rate*

For youth who discharged in FY 2015-16, **63.8%** (284 out of 445 youth) were guilty of one or more recidivist acts within three years of discharge from DYS.

### *Analysis Cohort recidivism rate*

For youth in the combined one-year post-discharge Analysis Cohort, **41.6%** (518 out of 1,245 total youth) were guilty of one or more recidivist acts within one year of discharge from DYS.

## **CHARACTERISTICS OF RECIDIVISTS**

Recidivists in the three discharge cohorts were significantly more likely to be male, have a history of one or more prior escapes, have three or more prior adjudications, receive a Poor or Unsatisfactory parole rating at discharge, and score as High Risk for recidivism on the Colorado Juvenile Risk Assessment (CJRA) administered at discharge (see Table 4 on page 29). In addition, the majority of recidivist youth were initially committed for a felony offense that did not fall under the Victim Rights Act (VRA) and ceased committing new recidivist acts by 15 months after discharging from all DYS supervision, on average. The majority of recidivist acts observed in the three discharge cohorts were misdemeanor

<sup>i</sup> For a more detailed description of the Analysis Cohort and how it was comprised, please see the Study Population section on pages 11-12, Table 2 on pages 21-22, and Appendix B on page 71.

offenses that did not fall under the VRA, suggesting a reduction in the severity of criminal acts from commitment to the end of the follow-up period.

### **RECENT CHANGES TO THE RESEARCH METHODS IN THE REPORT**

Colorado has experienced a decade of decline in the number of youth discharged from DYS (see Figure 1 on page 12). The decline in the number of youth discharged from the Division ( $n = 377$  in FY 2017-18) places limitations on the type and quality of analyses that can be performed with confidence and accuracy. Specifically, the sample sizes within the one-, two-, and three-year cohorts examined annually have become so small that they call into question whether or not sufficient statistical power can be generated to detect significant differences between groups. Given the challenges presented by the Division's shrinking population, significant changes were made to the research methods employed in the analyses with the goal of providing a scientifically rigorous means of addressing and ameliorating these challenges. The most significant change to the methodology was first implemented in the report produced on July 1, 2018, and involved creating a larger census for analysis. In order to obtain a larger census, the one-year post-discharge cohorts from the prior three fiscal years (FY 2015-16, FY 2016-17, and FY 2017-18) were combined into one, larger cohort of youth who were followed *for one year* for the analyses that follow. Increasing the sample size using this approach preserved the integrity of each cohort, while allowing for more meaningful comparisons both between and within groups. This larger cohort is referred to as the "Analysis Cohort" throughout the report.

The current report marks the first time that adult misdemeanors filed in the Denver County Court System (DCC) were included in the analyses. DCC is the only county court system in the State whose data is not captured by the Judicial Department's data system, the source of the data used annually to measure juvenile recidivism in Colorado. Denver County adult *felony* convictions are processed by the Denver District Court, which is a part of the Judicial Department's data system, and have always been included in the analyses. Similarly, Denver Juvenile Court processes juvenile misdemeanor and felony adjudications, therefore all juvenile adjudications from Denver have always been included in the analyses. Many former DYS youth included in the multi-year follow-up periods are 18 years of age or older, and thus could have been convicted of a misdemeanor in DCC. In March of 2019, a Memorandum of Understanding (MOU) was reached with DCC regarding the sharing of adult misdemeanor conviction data with the Division, and this report marks the inaugural year these data were included in the annual report. The adult misdemeanor convictions filed in DCC were matched by DCC staff to the list of youth in the Analysis Cohort and these matched data were provided to the Division for use in the analyses that follow. The inclusion of adult misdemeanors filed in DCC allows for a more complete analysis of juvenile recidivism in Colorado, and eliminates a long-standing limitation to reports produced in previous years.

### **TYPES OF RECIDIVIST ACTS COMMITTED**

Colorado Statute C.R.S., 19-2-203(6) was signed into law on March 7, 2018, and states that the annually mandated recidivism report "...must denote the types of criminal offenses committed, delineating between felonies and misdemeanors and between crimes that are included as a 'crime' pursuant to

Section 24-4.1-302(1) and other crimes.” In addition to the analysis of the types of recidivist acts (felony or misdemeanor) that has long been included in the recidivism report, 2019 marked the initiation of including an analysis of crimes pursuant to Section 24-4.1-302(1), which are recidivist acts that fall under the Victim Rights Act (VRA). Of the recidivists in the three discharge cohorts followed for one, two, and three years post-discharge, the majority were originally sentenced to DYS on felony adjudications (53.8% felony vs. 46.2% misdemeanor). Of these original commitment offenses, 39.5% were crimes that fell under the VRA. This finding is consistent with the findings described in previous reports, where property crimes (which do not fall under the VRA) were consistently found to be the most common commitment offense. The majority of recidivist acts committed over each of the follow-up time periods were misdemeanors (54.2%) compared to felonies (45.8%). Relatively few recidivist acts were crimes that fell under the VRA (26.7%).

### **CHRONICITY AND DESISTANCE OF RECIDIVIST ACTS**

When all recidivist acts captured between FY 2015-16 and FY 2017-18 were examined as a whole, a pattern emerged in which most youth who recidivate do so fairly quickly after discharge, and nearly half of these youth only commit one or two recidivist acts over the entire three year follow-up period ( $n = 328$ ; 48.9%). Recidivists in the analysis cohort ceased re-offending (achieved criminal desistance) at just under 15 months, on average ( $\mu = 14.97$ ). This finding indicates that most recidivists cease from committing new recidivist acts at just over one year after discharging from all DYS supervision. In other words, while some discharged youth do commit a new offense after leaving DYS, the vast majority of recidivists do not continue to commit new crimes over time, and do not have persistent observed future criminal involvement. Those youth with a larger number of recidivist acts, on average, tended to commit the bulk of their recidivist acts within 21 months of discharge, and committed their first recidivist act sooner than youth with fewer recidivist acts. In addition, those youth who committed more recidivist acts, on average, tended to demonstrate a more consistent pattern of re-offending over time. Many recidivist youth committed multiple recidivist acts that occurred on the same day (same-day offenses), and nearly 40% ( $n = 264$ ) of youth committed their last recidivist act on the same day as their first recidivist act<sup>ii</sup>. When same-day offenses were considered to be a single recidivist event, nearly two-thirds of youth committed two or fewer recidivist acts ( $n = 439$ ; 65.4%) (see Figure 26 on page 57).

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<sup>ii</sup> Examples of situations where multiple recidivist acts occur on the same day could be a set of two separate offenses occurring on the same day (e.g.: trespassing in two separate locations), but is more frequently an additional charge for the same criminal event for which an individual is found guilty (e.g.: trespassing, possession of burglary tools, theft, and unlawful weapons possession can result in four separate adjudications or convictions for a single criminal event occurring on the same date).

## **NATIONAL COMPARISON**

Currently, four states and the District of Columbia define, measure, and report juvenile recidivism utilizing a research methodology similar to Colorado, thus providing five data points for a between-states comparison of recidivism rates. When comparing the one-year post-discharge recidivism rates between comparable states, Colorado's rate (41.1%) is in the bottom half of the performance range (23.4% - 45.0%). Idaho (23.4%) and the District of Columbia (32.2%) had rates that were lower than Colorado. Two additional comparable states that produce annual recidivism rates, Maryland and Virginia, did not have their one-year post-discharge recidivism rates available at the time this report was published. It is anticipated that these rates will be released and will be available for inclusion in future reports.

## **UNDERSTANDING THE INCREASE IN THE ONE-YEAR POST-DISCHARGE RECIDIVISM RATE**

The one-year post-discharge recidivism rate for FY 2017-18 (41.1%) represents a 6.7% increase from the one-year rate of 34.4% reported for FY 2016-17, and is the largest single-year increase observed since the Division adopted the current definition of recidivism in 2013. There are several factors contributing to this increase in the one-year recidivism rate. For the first time, the Judicial Department data were extracted from their data system toward the end of September, more than two months later than previous years, when the data were pulled in mid-July. Extracting the data at a later date allowed for more filings that remained open in July to close, which increased the number of convictions and adjudications included in the calculation of the rate. In addition, an increase in the female recidivism rate was observed in the Analysis Cohort. Specifically, the total number of females in the Analysis Cohort ( $n = 184$ ) remained similar to that reported on July 1, 2019 ( $n = 190$ ); however, the female recidivism rate increased from 24.7% in 2019 to 31.5% (a 6.8% increase). The steep decline in the number of youth discharged each FY has also resulted in a smaller denominator used to calculate the rate. A smaller denominator requires less fluctuation in the numerator to produce large changes in the calculated rate. The inclusion of the DCC data had a minimal effect on the one-year post-discharge recidivism rate. Specifically, one (1) youth in the one-year post-discharge cohort was identified as a recidivist with a DCC filing as their only recidivist act. An additional ten youth in the one-year post-discharge cohort had convictions identified by the DCC data, but in each case there were additional adjudications or convictions present in the Judicial data that would have classified these youth as recidivists even without the DCC data. There are undoubtedly additional and unknown factors also contributing to the increase in the one-year post-discharge recidivism rate.



## C.R.S., 19-2-203(6) Details

The Colorado Department of Human Services (CDHS or Department), Office of Children, Youth and Families (OCYF or Office), Division of Youth Services (DYS or Division) prepares an annual recidivism report on committed youth. The current report is submitted in response to C.R.S., 19-2-203(6) (formerly House Bill 18-1010). The educational outcomes requirement is submitted in a separate report.

*On or before July 1, 2018, and on or before each July 1 thereafter, the Department of Human Services shall collect recidivism data and calculate the recidivism rates and the educational outcomes for juveniles committed to the custody of the Department who complete their parole sentences and discharge from Department supervision. In collecting the recidivism data, the Department shall include any juvenile adjudication or adult conviction of a criminal offense within three years after parole discharge.*

Statute C.R.S., 19-2-203(6) specifies that:

*The report must denote the demographic characteristics of the population considered in the report. In reporting on recidivism rates, the report must denote the types of criminal offenses committed, delineating between felonies and misdemeanors and between crimes that are included as a “crime” pursuant to Section 24-4.1-302(1) and other crimes.*

Specific elements can be found on the following pages:

- Demographic characteristics of the population considered in the report: Table 2, pages 21-22
- Criminal offenses committed (felonies, misdemeanors, and crimes pursuant to Section 24-4.1-302(1), C.R.S): pages 44-48

### **DEFINITION OF RECIDIVISM**

The Division defines recidivism as a new adjudication or conviction resulting from a misdemeanor or felony offense at any point within the prescribed follow-up time period(s). In FY 2012-13 this definition was changed from measuring recidivism as a new filing (irrespective of a guilty finding) within the same time parameter(s) in order to more closely conform to the research methodologies utilized by other states who track juvenile recidivism. This allows for a between-states comparison of recidivism data, and conforms to the definition endorsed and recommended by the Council of Juvenile Justice Administrators (CJJA, formerly known as the Council of Juvenile Corrections Administrators, or CJCA) [2].

### **POST-DISCHARGE RECIDIVISM**

Post-discharge recidivism refers to new adjudications and convictions that occur within the prescribed follow-up time period(s) *after* a youth has completed all treatment and services and is fully discharged from DYS supervision. DYS supervision includes time spent on parole; thus, the post-discharge follow-up time clock starts after all time on parole has ended. Post-discharge recidivism is the primary outcome measure utilized by juvenile justice agencies across the nation. It serves as a proxy measure for how well youth are able to re-integrate back into the community and remain crime-free upon discharge. Nationally, juvenile justice agencies are using recidivism rates to objectively determine whether treatment and services provided to youth were appropriate and effective, and also as a tool to inform policy and practice.

### **MULTI-YEAR RECIDIVISM RATES**

The majority of states currently engaged in measuring and reporting juvenile recidivism typically only report a one-year post-discharge recidivism rate. In contrast, DYS tracks youth for three years post-discharge in order to determine whether they have remained crime-free. Tracking youth for three years post-discharge provides a more rigorous and comprehensive longitudinal analysis of the overall paradigm of recidivism in Colorado, as well as the trajectory of outcomes over time.

## METHODOLOGY

### RECIDIVIST ACT DEFINED

A recidivist act is defined as a new adjudication or conviction that occurs after a youth has discharged from the supervision of the Division. Within the Criminal Justice System, an *adjudication* refers to a finding of guilt for a delinquent offense involving a defendant under the age of 18, and is analogous to a *conviction* of an adult defendant found guilty of a criminal offense. A youth is deemed to be a recidivist if he or she commits a new offense that results in a guilty finding for a misdemeanor or felony class charge (adjudication/conviction). Petty offenses are not counted as recidivist acts, and traffic violations (not to be confused with traffic infractions), are only included if they result in a misdemeanor or felony adjudication or conviction. The unit of analysis for this study is youth discharged from the Division (rather than the number of recidivist acts), and all information is reported in the aggregate.

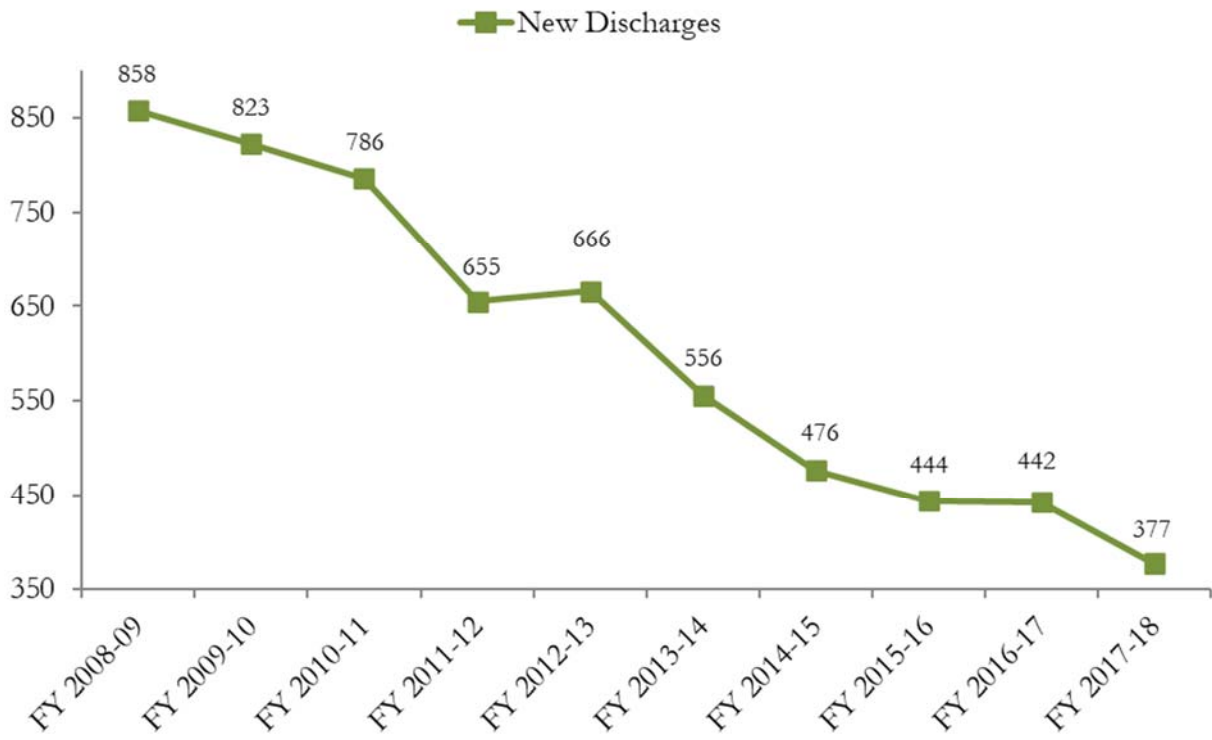
### STUDY POPULATION

In FY 2017-18, three hundred seventy-seven (377) youth discharged from DYS. These youth were observed for one year after discharge, and a one-year post-discharge recidivism rate was calculated. In FY 2016-17, four hundred forty-two (442) youth discharged from DYS. These youth were observed for two years after their discharge, and a two-year post-discharge recidivism rate was calculated. In FY 2015-16, four hundred forty-five (445) youth discharged from DYS. These youth were observed for three years following their discharge, and a three-year post-discharge recidivism rate was calculated. Official court records obtained from the Judicial Department and Denver County Court were used to identify all criminal filings with a finding of guilt for all three discharge cohorts.

An Analysis Cohort of 1,264 unique youth was created by combining each of the *one-year post-discharge cohorts* from three Fiscal Years (FYs 2015-16, 2016-17, and 2017-18) into a single, larger cohort. A total of 14 youth discharged in more than one FY contained within the Analysis Cohort due to consecutive DYS commitments, bringing the total of unique youth present in the Analysis Cohort to 1,250. Of these 14 youth with multiple commitments and discharges from DYS, five were excluded from the Analysis Cohort due to their dual recidivist and non-recidivist status. Specifically, these five youth committed a recidivist act within the one-year follow-up period of one of their discharges, but did not commit a recidivist act within the one-year post-discharge follow-up for another discharge from DYS. As these five youth can be simultaneously categorized as both recidivists and non-recidivists, their presence in statistical analyses would violate the assumptions of the tests performed to identify significant relationships. For the purposes of the demographic analyses, the remaining nine youth who discharged in more than one fiscal year but were exclusively either recidivists or non-recidivists in both one year post-discharge follow-up periods were retained in the Analysis Cohort, and were only counted once to avoid "double-counting" individual static characteristics (e.g.: sex, race/ethnicity, and age at first adjudication). Thus, the final total of unique youth included in the Analysis Cohort was 1,245. All of the analyses that follow (excluding the analysis of chronicity and criminal desistance) were conducted on this Analysis Cohort as a means of minimizing the effects of a substantially shrinking population size. Over the past ten years, the population of youth discharged annually from DYS has declined from a

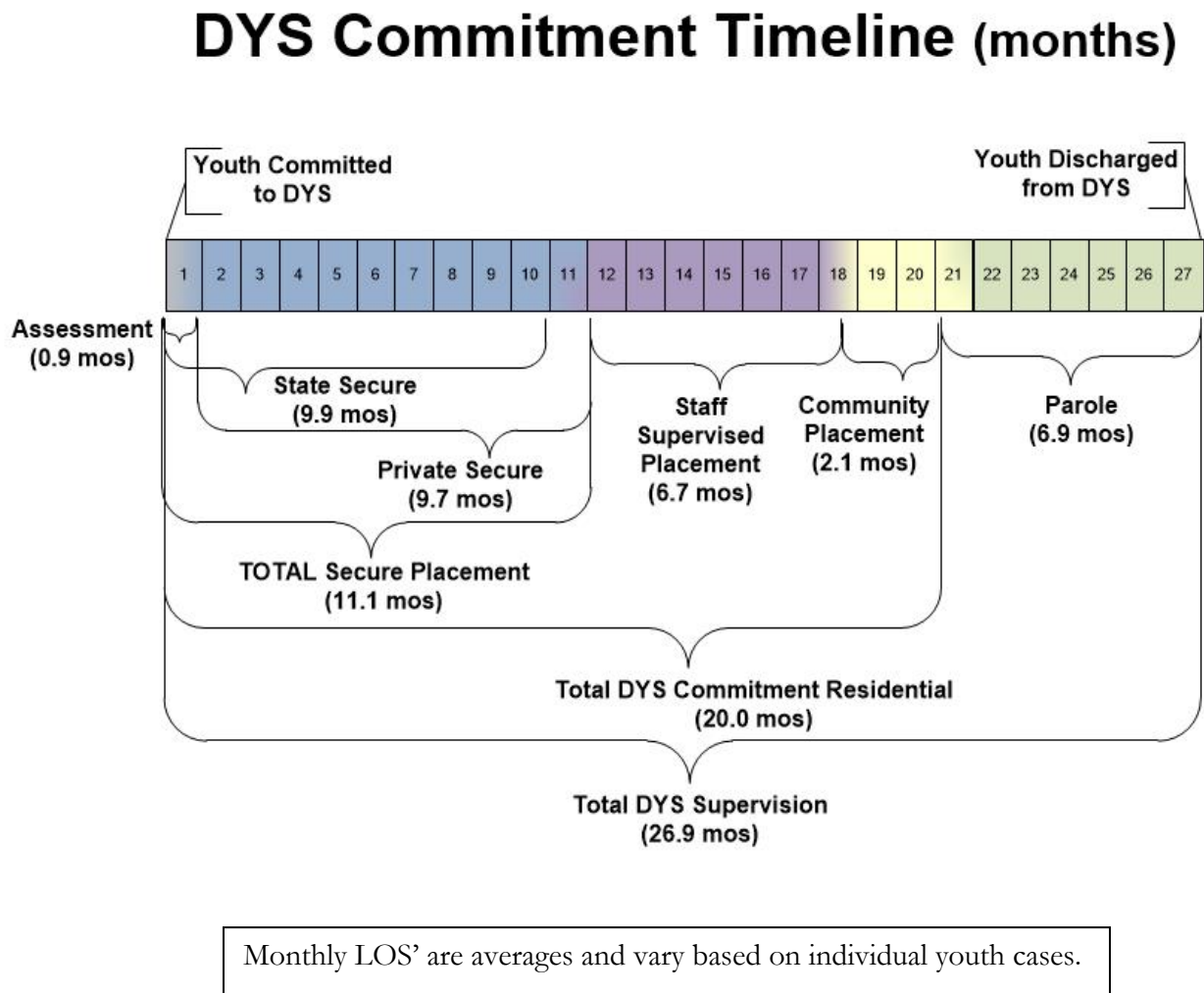
high of 858 in FY 2008-09 to a low of 377 in FY 2017-18, a 56.1% reduction (see Figure 1). This decrease in population size directly impacts the Division's ability to detect significant differences between groups, particularly when examined in smaller sub-populations (e.g.: males vs. females, by ethnicity, or among DYS special populations). Increasing the sample size is one accepted means of minimizing these challenges.

**Figure 1: Ten-Year Discharge Population Trends**



As Figure 2 illustrates, the average total length of DYS supervision for committed youth was 26.9 months in FY 2017-18. This total commitment Length of Service (LOS) begins at the time of commitment to DYS and continues through the parole period until a youth is officially discharged and DYS supervision ends.

Figure 2: DYS Timeline of Care



## STUDY DESIGN

A prospective quasi-experimental observational cohort study design with a longitudinal follow-up period measured at three distinct intervals was used in the current analysis. This approach allowed for non-intrusive observation of the natural progression of three cohorts of previously delinquent youth in the community after they were discharged from DYS. The Division utilized court data from the Colorado State Judicial Department (Judicial) and Denver County Court (DCC) data to determine whether or not a youth had committed a recidivist act during the follow-up period(s) for each cohort.

Due to several safeguards related to confidentiality and data-sharing, the Division developed a Memorandum of Understanding (MOU) specifically related to this annual study with both the Office of the State Court Administrator and the Denver County Court. These MOUs serve as a data-sharing agreement that grant DYS permission to utilize the adjudication/conviction information provided for purposes of identifying youth who recidivate.

## **RECORD MATCHING BETWEEN DYS AND JUDICIAL**

Matching records from Judicial to youth discharged from DYS is a difficult and labor-intensive process that is challenged by an inability of data systems across State agencies to “talk” to one another. In addition, typical matching techniques used in identifying adult offenders are simply not applicable to a juvenile population. Specifically, the typical forms of identification commonly present in the adult population (e.g.: driver’s license, social security number, etc.), are often rare or nonexistent for system-involved juveniles. Thus, youth discharged from DYS must be matched to a multitude of Judicial filings using less straightforward means. For this study, youth were matched between these two data systems through a two-step process. This process is both automated and manual, utilizing DYS data for discharged youth during the time period of interest, and seven FYs of filings data provided to DYS by Judicial Department staff. Initially, youth are matched by DYS staff through an algorithm that compares elements of a youth’s name and date of birth. Next, the remaining youth who do not match are identified by hand until all discharged DYS youth are accounted for in the Judicial system database. This hand-matching process is hindered by the vast number of aliases; misspellings; hyphenated names; attempts at intentional misrepresentation of identity; and data entry errors for dates of birth, social security numbers, etc. present in both data sets. Finally, all cases in the analysis data are reviewed to ensure the automated portion of the match did not result in any “false matches” in which two separate youth with similar names and identical dates of birth are incorrectly matched together. As a fidelity measure, each youth’s commitment case is identified in Judicial’s data, thus providing great confidence that all youth are being appropriately matched across systems.

## **RECORD MATCHING BETWEEN DYS AND DENVER COUNTY COURT**

For the first time, the annual recidivism report included DCC data to identify recidivists. As a part of the data sharing MOU developed to include these records, DCC performs all records matching between filings data and youth who have discharged from DYS. Upon completion of the matching process, DCC provides a completed list of discharged DYS youth with adult misdemeanor convictions in Denver County Court for inclusion in the analysis. Any questions regarding the methods used to perform this matching process should be directed toward DCC.

## **RECENT METHODOLOGY CHANGES**

Colorado has experienced a decade of decline in the number of youth discharged from DYS (see Figure 1 on page 12). The decline in the number of youth discharged from the Division ( $n = 377$  in FY 2017-18) places limitations on the type and quality of analyses that can be performed with confidence and accuracy. Specifically, the sample sizes within the one-, two-, and three-year cohorts examined annually have become so small that they call into question whether or not sufficient statistical power can be generated to detect significant differences between groups. Given the challenges presented by the Division’s shrinking population, significant changes were made to the research methods employed in the analyses with the goal of providing a scientifically rigorous means of addressing and ameliorating these challenges. The most significant change to the methodology was first implemented in the report produced on July 1, 2018, and involved creating a larger census for analysis. In order to obtain a larger census, the one-year post-discharge cohorts from the prior three fiscal years (FY 2015-16, FY 2016-17,

and FY 2017-18) were combined into one, larger cohort of youth who were followed *for one year* for the analyses that follow. Increasing the sample size using this approach preserved the integrity of each cohort, while allowing for more meaningful comparisons both between and within groups. This larger cohort is referred to as the “Analysis Cohort” throughout the report.

In addition to the creation of the Analysis Cohort, the Division has pivoted the focus of the analysis of patterns of offending away from identifying a single, most serious recidivist act among discharged youth (who were followed for one year). Instead, the analyses regarding patterns of offending currently includes a more comprehensive measure that examines the *chronicity* of *all* recidivist acts and *time to criminal desistance* across the one-, two-, and three-year post-discharge cohorts (followed out to three years post-discharge). The chronicity of recidivist acts refers to the number and frequency of all recidivist acts that occur over the time period of interest (one, two, and three years post-discharge), while time to criminal desistance measures the length of time between discharge and each youth’s last recidivist act. Expanding this portion of the analysis to include all recidivist acts committed out to three years post-discharge rather than limiting the analyses to a single, most serious recidivist act allows for a more rigorous and nuanced examination of trends in recidivism, and brings the report in-line with more current criminological research [1]. This is the second report to examine chronicity and desistance.

As the new analysis of chronicity and criminal desistance examines all recidivist acts rather than a single, most serious act, all discharged youth in the one-, two-, and three-year post-discharge cohorts were re-matched to the filings data provided by the Judicial Department in September of 2019 to ensure that every filing with a finding of guilt was captured for the current report. Reports published in the previous two years utilized Judicial Department data that was pulled on or around July 15<sup>th</sup> annually. One limitation of this approach is that it is no longer possible to re-create the recidivism rates from prior years using the current data, as the filings data provided in September of 2019 are more current and thus contain information that was not yet available in prior years. In addition, recidivism rates will necessarily be higher using the more recent data than those reported in prior years, as more recidivist acts are detected using these new methods. For example, many filings that were “open” (an arrest was made, charges were filed, but a formal finding of guilt or innocence was yet to be determined) at the time the discharge cohorts were originally matched to the filings data in prior years will now have a finding of guilt, and are considered recidivist acts. In this way, youth who were correctly identified as non-recidivists in the one-, two-, and three-year cohorts using the most current data available in prior years will now be correctly identified as recidivists within these same cohorts as a result of re-matching with more recent data. In contrast, the benefits of examining the chronicity and criminal desistance of recidivist acts for trends and patterns of behavior outweigh the known limitations of re-matching youth to include all filings over the three cohorts of interest.

Finally, the current report marks the first time that adult misdemeanors filed in the Denver County Court System (DCC) were included in the analyses. DCC is the only county court system in the State whose data is not captured by the Judicial Department’s data system, the source of the data used annually to measure juvenile recidivism in Colorado. Denver County adult *felony* convictions are processed by the Denver District Court, which is a part of the Judicial Department’s data system, and

have always been included in the analyses. Similarly, Denver Juvenile Court processes juvenile misdemeanor and felony adjudications, therefore all juvenile adjudications from Denver have always been included in the analyses. Many former DYS youth included in the multi-year follow-up periods are 18 years of age or older, and thus could have been convicted of a misdemeanor in DCC. In March of 2019, a Memorandum of Understanding (MOU) was reached with DCC regarding the sharing of adult misdemeanor conviction data with the Division, and this report marks the inaugural year these data were included in the annual report. The adult misdemeanor convictions filed in DCC were matched by DCC staff to the list of youth in the Analysis Cohort and these matched data were provided to the Division for use in the analyses that follow. The inclusion of adult misdemeanors filed in DCC allows for a more complete analysis of juvenile recidivism in Colorado, and eliminates a long-standing limitation to reports produced in previous years.



## RECIDIVISM RATES

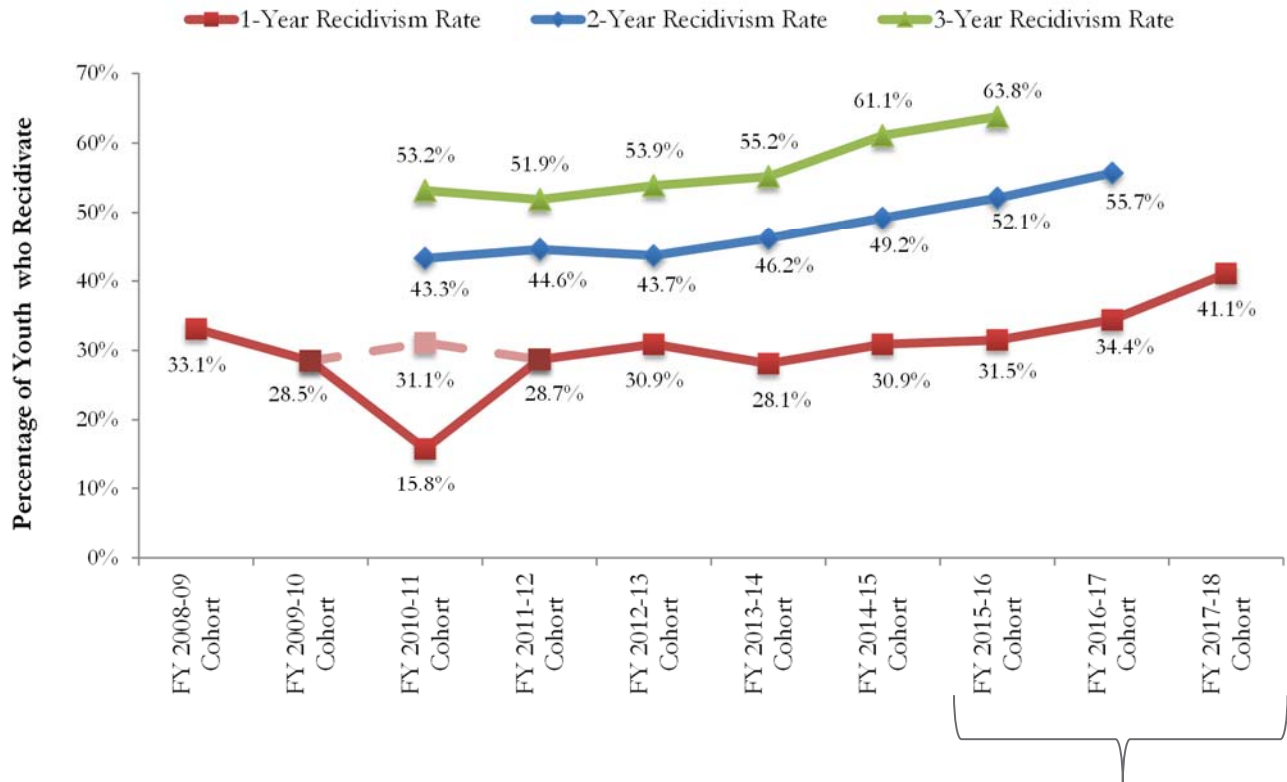
A decade (10 years) of DYS recidivism rates are displayed in Figure 3. The one-year post-discharge recidivism rate has consistently averaged around 31%, with the exception of the data initially reported in FY 2010-11. The recidivism rate of 15.8% originally reported in FY 2010-11 was investigated and found to be a result of a data coding error that failed to identify certain filings. The data were subsequently re-pulled from the Judicial system, and the actual one-year post-discharge recidivism rate of 31.1% was revealed. In the spirit of transparency, the rate originally published is preserved in Figure 3.

The one-year post-discharge rate increased from 34.4% reported for FY 2017-18 to 41.1% in the current study (a 6.7% increase), and is the largest single-year increase observed since the Division adopted the current definition of recidivism in 2013. There are several factors that appear to have contributed to this increase in the one-year recidivism rate. For the first time, the Judicial and DCC filings data used to identify recidivist acts were pulled toward the end of September, more than two months later than previous years, when the Judicial data were pulled in mid-July. Pulling the data later in the FY allowed for more filings that remained open in July to close, which thus increased the number of convictions and adjudications contributing to the rate. In addition, an increase in the female recidivism rate was observed in the Analysis Cohort. Specifically, the total number of females in the Analysis Cohort ( $n = 184$ ) remained similar to that reported on July 1, 2019 ( $n = 190$ ); however, the female recidivism rate increased from 24.7% in 2019 to 31.5% (a 6.8% increase). Another contributing factor to the increase in the one-year post-discharge rate was the steep decline in the number of youth discharged each FY, which resulted in a smaller denominator used to calculate the rate. A smaller denominator requires less fluctuation in the numerator to produce large changes in the calculated rate. Finally, the inclusion of the DCC data had a minimal effect on the one-year post-discharge recidivism rate. Specifically, one (1) youth in the one-year post-discharge cohort was identified as a recidivist with a DCC filing as their only recidivist act. An additional 10 youth in the one-year post-discharge cohort had convictions identified by the DCC data, but in each case there were additional adjudications or convictions identified in the Judicial data that would have identified these youth as recidivists even without the DCC data. There are undoubtedly additional unknown factors also contributing to the increase in the one-year post-discharge recidivism rate.

Two- and three-year post-discharge recidivism rates were introduced to the reports published in FY 2014 and FY 2015, respectively, for youth who discharged in FY 2011-12. The two-year post-discharge recidivism rate has averaged 47.8% over seven years of measurement, with a range of 43.3% to 55.7%. The three-year post-discharge recidivism rate averaged 56.5% over six years of measurement, with a range of 51.9% to 63.8%. Compared to the one-year post-discharge recidivism rate, the two- and three-year rates did not demonstrate as large an increase compared to previous years. This finding is consistent with evidence that the vast majority of youth who recidivate do so within the first 12 months

(79%), and nearly half of recidivists (48.9%) commit two or fewer recidivist acts, and then desist from committing new recidivist acts. In summary, over half of committed youth are convicted or adjudicated on a new felony or misdemeanor offense within three years of discharging from the Division.

**Figure 3: Recidivism Trends Over Time (One-, Two-, and Three-Years Post-Discharge)**



The three cohorts of interest in this study.

## MULTI-YEAR RECIDIVISM RESULTS

The table that follows (Table 1) reports the recidivism rates across all three cohorts of interest in this study. The three unique cohorts of discharged youth were examined by follow-up period to see how many youth recidivated after one, two, and three years post-discharge. See Table 1 for details on multi-year recidivism rates.

**Table 1: Recidivism Rates by Discharge Cohort**

Youth Discharge Cohort	One-Year Recidivism Rate	Two-Year Recidivism Rate	Three-Year Recidivism Rate
FY 2017-18 cohort ( <i>N</i> = 377)	41.1%	TBD*	TBD*
FY 2016-17 cohort ( <i>N</i> = 442)	34.4%	55.7%	TBD*
FY 2015-16 cohort ( <i>N</i> = 445)	31.5%	52.1%	63.8%

\*Rates TBD; available in forthcoming reports

### **FY 2017-18 Cohort**

The FY 2017-18 discharge cohort (*N* = 377) has currently been tracked for one year following discharge from DYS. The one-year recidivism rate for this cohort was 41.1%. Please see page 14 for a description of the factors that had an observed impact on the one-year recidivism rate. The two- and three-year rates will be reported once the allotted two- and three-year time periods have concluded.

### **FY 2016-17 Cohort**

The FY 2016-17 discharge cohort (*N* = 442) has been tracked for two years following discharge from DYS. The one- and two-year recidivism rates for this cohort were 34.4% and 55.7%, respectively. The three-year recidivism rate will be reported once the allotted three-year time period has concluded.

### **FY 2015-16 Cohort**

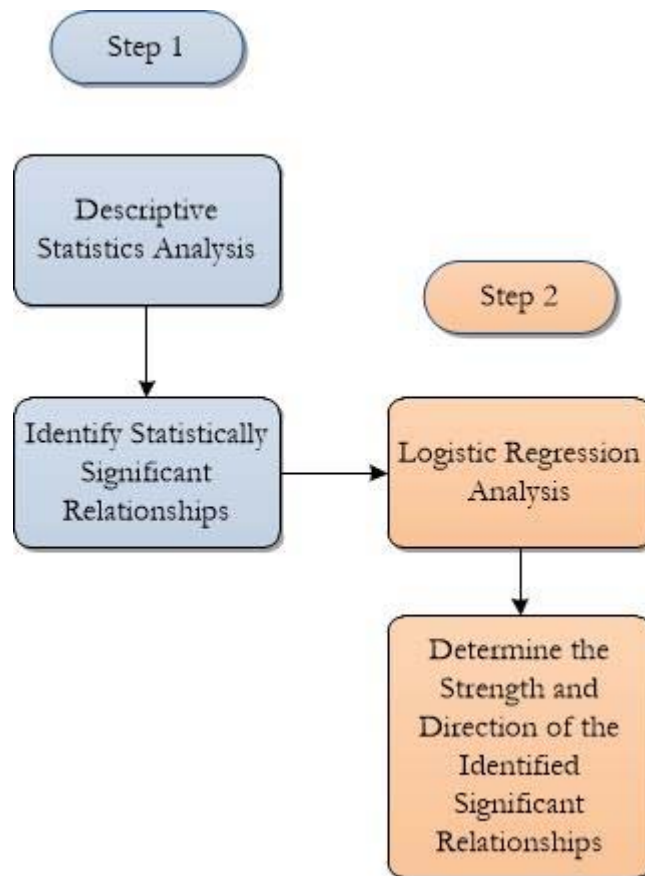
The FY 2015-16 discharge cohort (*N* = 445) has been tracked for three years following discharge from DYS. The one-, two-, and three-year recidivism rates for this cohort were 31.5%, 52.1%, and 63.8%, respectively.

## RECIDIVISM ANALYSIS COHORT

### Statistical Analysis Steps

Conducting statistical analysis is a scientific process that must, like all science, adhere to a series of procedures or steps. Each of these steps is guided by the data, and the results of the analyses conducted within each step dictate what additional analyses can be conducted. Simply put, the analysis begins with basic tests of the relationships between a number of independent variables identified by the literature and larger body of juvenile justice research as contributing to recidivism (the dependent variable in this case: being a recidivist). Any variables found to have a significant relationship are thought to create a “model” for accurately predicting an outcome (being a recidivist) based on the data. Next, this model is subjected to more sophisticated analyses in order to test the *strength* and *direction* of any relationships previously identified as being statistically significant (See Figure 4).

Figure 4: Statistical Analysis Steps



## Step 1: Descriptive Statistics

The table that follows (Table 2) details some basic descriptive differences between youth who recidivated and youth who did not recidivate within one year of discharge (FYs 2015-16, 2016-17, and 2017-18 discharge cohorts combined into one, larger Analysis Cohort). **Only those youth demographics which demonstrated differences that were statistically significant are displayed in Table 2.** For detailed information on some of the non-significant demographics examined, please refer to Table 3 and Appendix B. Please note that due to rounding, data presented in tables and figures may not sum to 100% throughout the report.

**Table 2: Demographic Differences between Non-Recidivists and Recidivists (Analysis Cohort)**

	Non-Recidivists		Recidivists		<i>p</i> -value <sup>1</sup>	Effect Size <sup>2</sup>	% of Total
	<i>n</i>	%	<i>n</i>	%			
<b>Total (N = 1,245)<sup>3,4</sup></b>	<b>727</b>	<b>100%</b>	<b>518</b>	<b>100%</b>			<b>100%</b>
<b>1. Gender</b>							
Male	601	56.6%	460	43.4%	0.003	0.09 (weak)	85.2%
Female	126	68.5%	58	31.5%			14.8%
<b>2. Number of Escapes<sup>5</sup></b>							
None	341	46.9%	167	32.2%	< 0.000	0.15 (small)	40.8%
One or more	386	53.1%	351	67.8%			59.2%
<b>3. Mean Age at First Adjudication</b>							
	15.0		14.7		0.02	N/A	14.9
<b>4. Prior Number of Adjudications</b>							
None	236	32.5%	109	21.0%	< 0.000	0.14 (small)	27.7%
One	193	26.5%	157	30.3%			28.1%
Two	165	22.7%	121	23.4%			23.0%
More than Two	133	18.3%	131	25.3%			21.2%
<b>5. Parole Rating at Discharge<sup>6</sup></b>							
Poor to Unsatisfactory	259	35.6%	305	58.9%	< 0.000	0.23 (small)	45.3%
Satisfactory to Excellent	420	57.8%	189	36.5%			48.9%
Not on Parole at Time of Discharge	48	6.6%	24	4.6%			5.8%
<b>6. VRA Commitment Offense</b>							
VRA Offense	346	47.6%	193	37.3%	< 0.000	N/A	43.3%
Non-VRA Offense	381	52.4%	325	62.7%			56.7%
<b>7. Commitment Offense Type</b>							
Person Offense	349	48.8%	197	38.0%	0.001	0.103 (small)	43.9%
Property Offense	246	33.8%	197	38.0%			35.6%
Other Offense	132	18.2%	124	23.9%			20.6%

*(Table continued on following page)*

**Table 2 (continued): Demographic Differences between Non-Recidivists and Recidivists (Analysis Cohort)**

	Non Recidivists		Recidivists		<i>p</i> -value	Effect Size	% of Total
	<i>n</i>	%	<i>n</i>	%			
<b>8. Program at Discharge</b>							
Program in Place	520	71.5%	317	61.2%	< 0.000	-0.11 (small)	67.2%
No Program	207	28.5%	201	38.8%			32.8%
<b>9. Number of Parole Revocations</b>							
Zero	606	83.4%	371	71.6%	< 0.000	0.14 (small)	78.5%
One or More	121	16.6%	147	28.4%			21.5%
<b>10. CJRA Overall Risk Level at Discharge<sup>7</sup></b>							
Not High	250	38.8%	130	27.4%	< 0.000	0.12 (small)	34.0%
High	394	61.2%	345	72.6%			66.0%
<b>11. Secure Need Factors</b>							
Zero	102	14.0%	46	8.9%	0.028	0.09 (weak)	11.9%
One	227	31.2%	156	30.1%			30.8%
Two	236	32.5%	183	35.3%			33.7%
More than Two	162	22.3%	133	25.7%			23.7%
<b>12. Assessed Substance Abuse Treatment Need<sup>8</sup></b>							
No Treatment Need	99	13.7%	46	8.9%	0.009	0.74 (large)	11.7%
Treatment Need	623	86.3%	472	91.1%			88.3%

<sup>1</sup> *p* < 0.05 (indicates a statistically significant difference between recidivists and non-recidivists).

<sup>2</sup> An effect size is considered large at 0.5, medium at 0.3, small at 0.1, and weak when below 0.1.

<sup>3</sup> Fourteen youth had more than one discharge date due to consecutive sentences, new commitments, etc. Of these fourteen youth, nine were found to be exclusively identified as either a recidivist or a non-recidivist in both discharge years, thus sustaining the assumptions of the tests of statistical significance employed. For the purposes of the demographic analyses, these nine youth were only counted once within the demographics analyses to avoid "double-counting" individual characteristics of recidivists and non-recidivists.

<sup>4</sup> Five of the fourteen youth who discharged in multiple FYs were excluded from the analysis cohort due to their dual recidivist and non-recidivist status in different discharge years, which violates the assumptions of the tests of statistical significance employed.

<sup>5</sup> An escape, for the purposes of this study, is defined as a period of time when a youth absconds from a commitment facility, a community placement, or from parole for four hours or longer without permission.

<sup>6</sup> The Parole Discharge Rating is the level at which the client manager determines the youth to be at discharge in regard to parole compliance, which is based on pre-determined criteria.

<sup>7</sup> Only valid CJRAs administered at discharge were included in the analysis. A discharge CJRA is considered to be valid if it is both complete and was administered within 90 days of discharge. A total of 1,119 youth in the Analysis Cohort had a valid discharge CJRA (89%).

<sup>8</sup> Only youth who completed a substance abuse treatment needs assessment at the time of commitment were included in the analysis. A total of 1,240 youth in the Analysis Cohort had a valid substance abuse treatment needs assessment (99.6%). Five youth within the Analysis Cohort received a concurrent sentence to the Department of Corrections or the Youthful Offender System and thus did not undergo a DYS assessment.

While Table 2 provides detailed information regarding those demographics found to have a significant relationship with recidivist status, it does not represent the total number of demographics examined. A brief overview of some of the demographics examined is provided in Table 3. Each year, a wide variety of demographic variables are examined for possible significant relationships, including those of interest

to current policies, initiatives, etc. In the current report, these included *but were not limited to*: the total amount of time youth spent in placements away from their homes or communities (length of service in residential placements), length of service on parole, length of service in state secure residential placements, the commitment offense charge, the number of parole suspensions, sex offender status, and whether or not a youth was assessed with either a mental health or a co-occurring disorder at commitment (co-occurring disorder indicates a both a mental health and a substance abuse treatment need). None of these variables, nor any of the many additional variables examined, was found to have a significant relationship with recidivist status.

**Table 3: Demographic Variables Examined for Non-Recidivists and Recidivists (Analysis Cohort)**

Differences between Recidivists and Non-Recidivists <sup>1</sup>		
Variables	Significant?	
Gender	Yes	✓
Number of Escapes	Yes	✓
Mean Age at First Adjudication	Yes	✓
Prior Number of Adjudications	Yes	✓
Parole Rating at Discharge	Yes	✓
VRA Commitment Offense	Yes	✓
Commitment Offense Type (person, property, or other)	Yes	✓
Program at Discharge	Yes	✓
Number of Parole Revocations	Yes	✓
CJRA Overall Risk Level at Discharge	Yes	✓
Secure Need Factors	Yes	✓
Assessed Substance Abuse Treatment Needs	Yes	✓
Age at Discharge	No	✗
Age at Commitment	No	✗
Length of Service Total Residential Placements	No	✗
Length of Service Parole	No	✗
Length of Service State Secure Residential Placements	No	✗
Ethnicity Recoded into 4 Categories	No	✗
Minority/Non-Minority Ethnicity	No	✗
DYS Committing Offense Charge (felony or misdemeanor)	No	✗
Region	No	✗
One or More Recommitments	No	✗
Mental Health	No	✗
Co-Occurring Disorder	No	✗

<sup>1</sup> Additional variables were examined for analysis, but were not tested as the distribution of data between groups was too unequal to continue.

## Summary of Descriptive Analyses

### Demographic Differences Found between Recidivists & Non-Recidivists

An extensive analysis of potentially differential demographic characteristics (variables) was conducted in order to determine which traits best characterized youth who recidivated. In other words, the analysis that follows attempts to define, in very general terms, significant associations between characteristics of youth who recidivate when compared to youth who did not recidivate. As anticipated, increasing the analysis sample size continued to generate sufficient statistical power to detect significant between-groups differences for variables identified by the literature to be linked to juvenile recidivism. Generally speaking, an effect size is a statistical tool used with certain tests to illustrate practical or meaningful differences observed, and can be thought of as a measurement of the *amount of impact* an independent variable (youth characteristic) has on a dependent variable (being a recidivist). The 12 characteristics that generated significant findings are shown in Table 2 and are summarized below.

#### 1. Gender

The overwhelming majority of youth in the Analysis Cohort were male (85%). When examined by gender, the recidivism rate was higher among males (43.4%;  $n = 460$ ) than females (31.5%;  $n = 58$ ). The relationship between gender and recidivism was statistically significant with a weak effect size (Phi) ( $p = 0.003$ ;  $\Phi = 0.09$ ). It should be noted, however, that the number of female recidivists in the analysis sample remained very small, despite aggregating three years of one-year cohort data ( $n = 58$ ). This very small sample size excluded the possibility of performing additional within-groups analyses comparing female recidivists to their male counterparts.

#### 2. Number of Escapes

An escape, for the purposes of this study, is defined as a period of time when a youth absconds from a commitment facility, a community placement, or from parole for four hours or longer without permission. More than half (59.2%) of all youth in the Analysis Cohort had an escape at some point prior to discharge. A larger percentage of recidivists (67.8%) had one or more escapes compared to non-recidivists (53.1%). The relationship between having a history of escapes while committed to DYS and recidivism was statistically significant, though the effect size was small ( $p < 0.000$ ,  $\Phi = 0.15$ ).

#### 3. Age at First Adjudication

The average age at which youth in the Analysis Cohort were first adjudicated for a delinquent offense was 14.9 years. Recidivists were younger (14.7 years) than their non-recidivist counterparts (15.0 years), and the relationship of age at first adjudication and being a recidivist was significant ( $p < 0.02$ ). This finding is consistent with the literature on juvenile delinquency, which finds that the likelihood of becoming an adult offender is greater among youth who demonstrate an early onset of criminality, are chronic delinquents, and commit violent offenses [1] [3] [4].



#### 4. Prior Number of Adjudications

Forty-four percent of youth in the Analysis Cohort had two or more prior adjudications. There were fewer recidivists with zero prior adjudications (21.0%) compared to non-recidivists (32.5%), and a larger number of recidivists with more than two prior adjudications (25.3%) compared to non-recidivists (18.3%) ( $p < 0.000$ ,  $\Phi = 0.14$ ). Generally speaking, youth with multiple prior adjudications may possess a tolerance or acceptance for a deviant life course or trajectory, which would be consistent with behaviors associated with recidivism [1] [3].

#### 5. Parole Rating at Discharge

The Parole rating at discharge is the level at which the client manager determines the youth to be in regard to parole compliance (based on pre-determined criteria) at discharge, indicating a smooth and successful transition back into the community. A total of 72 youth did not go on parole prior to discharge. Instead, some youth may discharge directly to adult corrections, turn 21 prior to parole being granted, be deported, have their sentence terminated by the court, etc. The goal of the Division is that each youth earns either a Satisfactory or Excellent parole rating at discharge. Unfortunately, some youth ultimately discharge from parole with a Poor or Unsatisfactory rating (45.3% in the Analysis Cohort). A Poor or Unsatisfactory parole rating at discharge indicates a high level of non-compliance; however, the Division relinquishes all supervision and authority over youth once the parole sentence has been served and youth are discharged from the Division.

A closer look at the 45.3% revealed that recidivists comprised a larger percentage of youth with a Poor or Unsatisfactory rating (58.9%) compared to non-recidivists (35.6%), a significant relationship with a small effect size ( $p < 0.000$ ;  $\Phi = 0.23$ ). Conversely, recidivists represented a smaller percentage of youth receiving either a Satisfactory or Excellent rating compared to non-recidivists. While 57.8% of non-recidivists received a Satisfactory or Excellent parole rating, only 36.5% of recidivists received this same rating.

#### 6. VRA Commitment Offense

Crimes that fall under Colorado's Victim Rights Act (VRA) can generally be thought of as crimes committed against persons, and typically include specific victims. Examples of these types of crimes include but are not limited to: homicide, assault, sexual assault, kidnapping, and robbery. Please see Appendix C for a complete list of crimes that fall under the Victim Rights Act. Most youth in the Analysis Cohort were not committed to DYS for a VRA crime (56.7%). A larger percentage of non-recidivists were committed to DYS for a VRA crime (47.6%) compared to recidivists (37.3%), a significant relationship ( $p < 0.000$ ). This finding aligns with the literature on offenders who commit property crimes (which do not fall under the VRA) being more likely to recidivate, when compared to offenders who commit crimes against persons [5]. This finding may be counterintuitive to some readers.

## 7. Commitment Offense Type

In addition to VRA crimes, offenses can be generally categorized as person, property, or other offenses. For the purposes of this report, “other” offenses include drug, weapon, serious traffic offenses that have been amended to misdemeanors (e.g.: DUI resulting in serious bodily injury or death), and any other adjudications resulting in commitment to DYS. Crimes perpetrated against another person are thought to be among the most serious, and include crimes such as murder, assault, and rape. More youth in the Analysis Cohort were committed for a person offense (43.9%) compared to property offenses (35.6%) and other offenses (20.6%). Among recidivists, a smaller percentage of youth were committed for a person offense (38.0%) compared to non-recidivists (48.8%). These differences were statistically significant, with a small effect size ( $p = 0.001$ ,  $\Phi = 0.103$ ).

## 8. Program at Discharge

It is the Division’s goal to have every youth engaged in either a full- or part-time program at discharge. A youth is considered to have a program in place at discharge if they are either employed, enrolled in school or vocational training, performing community service, parenting, or have other consistent responsibilities in place. Over two-thirds of the youth in the Analysis Cohort had a program in place at discharge (67.2%). A larger percentage of non-recidivists had a program in place at discharge (71.5%;  $n = 520$ ) compared to recidivists (61.2%;  $n = 317$ ), a significant relationship with a small effect size ( $p < 0.000$ ,  $\Phi = -0.108$ ).

## 9. Number of Parole Revocations

Juvenile offenders in Colorado have a mandatory minimum parole length of six months. Parole refers to the status of an offender conditionally released from a residential setting at the discretion of the Juvenile Parole Board (JPB). The Colorado JPB is established as a Type-1 transfer board and requires gubernatorial appointment. All rendering of findings during juvenile parole hearings are formed independently from Executive Director of the Department of Human Services. While on parole, a youth is under the supervision of a parole officer (formerly their client manager) and is required to observe the conditions of release set by the Juvenile Parole Board. Parole revocation is an administrative action of the Juvenile Parole Board that removes a youth from parole status in response to a violation of the lawfully required conditions of parole, including the prohibition against commission of a new offense. The majority of youth in the Analysis Cohort had zero parole revocations (78.5%). A larger percentage of recidivists had one or more parole revocations (28.4%) compared to non-recidivists (16.6%), a significant relationship with a small effect size ( $p < 0.000$ ,  $\Phi = 0.141$ ).

## 10. CJRA Overall Risk Level at Discharge

Nearly two-thirds (66.0%) of youth in the Analysis Cohort with a valid Colorado Juvenile Risk Assessment (CJRA) administered at discharge scored as High risk to recidivate. The discharge CJRA is considered to be valid if it was both complete and administered within 90 days of discharge. A total of 1,119 (89%) of youth in the Analysis Cohort had a valid CJRA administered at discharge. Recidivists represented a larger percent of youth scoring High risk compared to non-recidivists. Nearly three-

quarters (72.6%) of recidivists scored as High risk on the discharge CJRA compared to 61.2% of non-recidivists. Conversely, recidivists represented a smaller percentage of youth scoring as Not High risk to recidivate compared to non-recidivists (27.4% and 38.8%, respectively), a relationship that was significant with a small effect size ( $p < 0.000$ ;  $\Phi = 0.12$ ).

### **11. Secure Need Factors**

The overwhelming majority of youth in the Analysis Cohort had at least one secure need factor (88.2%). Secure need factors refer to certain youth characteristics identified during the DYS assessment process that indicate a need for placement in a secure facility. Specifically, these secure need factors include scoring in the secure need range on the Commitment Classification Instrument administered during assessment, having a special sentence, having more than one recommitment, having a history of more than two out-of-home placements, and having a history of one or more escapes. The large percentage of youth with a need for secure placement is important to consider, especially in conjunction with the significant decline in the population of youth committed to DYS. While the Division has noted an overall decline in the number of youth committed over the past decade, the number of committed youth who are assessed to require a secure placement has increased. This increase reflects statewide efforts to divert low-risk and low-level juvenile offenders toward alternatives to incarceration. There was a larger percentage of recidivists with two (35.3%) and more than two (25.7%) secure need factors compared to their non-recidivist counterparts (32.5% and 22.3%, respectively), and a smaller percentage of recidivists with zero (8.9%) secure need factors compared to non-recidivists (14.0%). These relationships were statistically significant, but the strength of the relationship (i.e.: effect size) was weak ( $p = 0.028$ ;  $\Phi = 0.09$ ).

### **12. Assessed Substance Abuse Treatment Needs**

As was the case with the number of secure need factors, the vast majority of youth in the Analysis Cohort were assessed to have a substance abuse treatment need at the time of commitment (88.3%). In general, a larger percentage of recidivists were assessed to have a substance abuse treatment need at commitment (91.1%) compared to non-recidivists (86.3%). This relationship was statistically significant ( $p = 0.009$ ), and the strength of the relationship was large ( $\Phi = 0.74$ ).

## **Step 2: Logistic Regression Analysis**

Logistic regression analysis is a statistical modeling technique that seeks to quantify the degree to which two groups are different based on the characteristics identified during the initial descriptive analysis (step 1). While the initial analysis examined whether or not a significant relationship exists between those characteristics of youth who recidivate and youth who do not recidivate, the analysis that follows attempts to demonstrate the strength and direction of the observed differences. The results of the logistic regression estimate the probability of an event (being a recidivist) occurring, and can be interpreted as the odds of a youth in the population being a recidivist based on the variables present in the model.

A binomial logistic regression model was fit for the 11 variables found to be predictive of recidivism in the descriptive analysis (step 1) in an effort to determine which youth characteristics had the most influence on recidivism when all other differential variables were held constant. The results of this type of analysis are interpreted in terms of probability using an odds ratio (OR). The greater the odds ratio, the more likely an individual with a particular characteristic is to be a recidivist when taking into account other possible factors. Conversely, the smaller the odds ratio, the less likely an individual with a particular characteristic is to be a recidivist.

### **Summary of the Logistic Regression**

#### *Which Characteristics Were MOST Predictive of Recidivism (Presented as Odds Ratios)?*

There were 1,245 youth in the Analysis Cohort, with 518 re-offending within the one-year follow-up period (41.6%). For the analyses that follow, two variables in the model that were found to have a significant relationship with being a recidivist included only those youth with valid scores for these measures: the CJRA overall risk level at discharge, and the assessed substance abuse treatment needs. The CJRA overall risk level at discharge included only those youth with a valid discharge CJRA ( $n = 1,119$ ), and the number of youth with assessed substance abuse treatment needs excluded an additional 5 youth. Thus, the sample size for the analyses that follows was 1,114, or 89.5% of the total number of unique youth in the Analysis Cohort. A binomial logistic regression model was created that included each of the 12 individual-level characteristics found to be significant among recidivists described in the previous section: gender, number of escapes, average age at first adjudication, number of prior adjudications, parole rating at discharge, having a VRA crime as a commitment offense, commitment offense type, having a program in place at discharge, number of parole revocations, CJRA overall risk level at discharge, assessed substance abuse treatment needs, and number of secure need factors<sup>iiiiv</sup>. The model sought to further examine the relationship between these variables and being a recidivist, with the goal of developing a formula for making predictions about recidivism based on the observed values of the independent variables. In this model, 4 of the 12 variables (gender, the number of prior adjudications, parole rating at discharge, and CJRA overall risk level at discharge) were found to be predictive of recidivism (see Table 4), while one variable, number of escapes, approached significance ( $p = 0.057$ ). The significant findings are reported in the pages that follow.

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<sup>iii</sup> There were two studentized residuals with values greater than two standard deviations kept in the analysis.

<sup>iv</sup> Linearity of the continuous variable with respect to the logit of the dependent variable was assessed via the Box-Tidwell procedure. A Bonferroni correction was applied using all 24 terms in the model resulting in statistical significance being accepted when  $p < .0021$ . Based on this assessment, the continuous independent variable was found to be linearly related to the logit of the dependent variable.

**Table 4: Characteristics Predictive of Recidivism (Presented as Odds Ratios)**

Characteristics Predictive of Recidivism		
	Recidivists	Odds Ratio*
Gender	Male	1.9
Prior Adjudications	Three or More Prior Adjudications	1.8
Parole Rating at Discharge	Poor or Unsatisfactory	2.1
CJRA Overall Risk Level at Discharge	High Risk	1.4

\*The Odds Ratio represents the odds that an outcome (being a recidivist) will occur given the presence of certain characteristics.

#### **GENDER**

In the Analysis Cohort, the odds of being a recidivist were 1.9 times greater for males compared to females. This finding is consistent with national studies which have repeatedly indicated that males are more at risk for delinquency and criminality than are females, controlling for all other variables [6] [7] [8].<sup>v</sup>

#### **NUMBER OF PRIOR ADJUDICATIONS**

Youth with a larger number of prior adjudications had increased odds of being a recidivist compared to youth with zero prior adjudications. Among youth with three or more prior adjudications, the odds of being a recidivist increased by a factor of 1.8 compared to youth with zero prior adjudications, controlling for all other variables.<sup>vi</sup> Compared to youth with no prior adjudications, for youth with one prior adjudication the odds of being a recidivist is increased by a factor of 1.7, holding all other variables constant. Finally, for youth with two prior adjudications, the odds of being a recidivist increased by a factor of 1.6 compared to youth with no prior adjudications.

#### **PAROLE RATING AT DISCHARGE**

The odds of being a recidivist for youth who discharged with a Satisfactory or Excellent parole rating were 2.1 times lower compared to youth with a Poor or Unsatisfactory rating, controlling for all other variables.<sup>vii</sup> As is consistent with the results of prior analyses, youth who discharged with either a Satisfactory or Excellent parole rating at discharge had lower odds of being a recidivist compared to youth with a Poor or Unsatisfactory parole rating at discharge. Earning a Satisfactory or Excellent

<sup>v</sup> Males: OR = 1.90, 95% Confidence Interval (CI): 1.3-2.8,  $p = 0.001$ .

<sup>vi</sup> Number of prior adjudications: 3 adjudications: OR = 1.84, CI: 1.2-2.7  $p = 0.003$ ; 2 adjudications: OR = 1.5, CI: 1.1-2.2,  $p = 0.03$ ; 1 adjudication: OR = 1.5, CI: 1.1-2.2,  $p = 0.01$ .

<sup>vii</sup> Satisfactory or Excellent parole rating at discharge compared to Poor or Unsatisfactory: OR = 2.1, CI: 1.5-3.0,  $p < 0.000$ .

parole rating indicates a higher level of compliance with the conditions of parole, many of which are identified protective factors for juvenile delinquency, such as regular school attendance, avoiding antisocial or criminally involved peers, abstaining from alcohol and other illicit substances, regular employment, and participation in prosocial activities [1]. A Satisfactory or Excellent parole rating also indicates a more successful reintegration and transition back into the community.

### **CJRA OVERALL RISK (FOR RECIDIVISM) LEVEL AT DISCHARGE**

Very few youth scored as Low risk to recidivate on the discharge CJRA ( $n = 82$ ) compared to youth who scored as High ( $n = 739$ ) or Moderate ( $n = 298$ ). Given these unequal group sizes for comparison, youth scoring either Low or Moderate risk to recidivate were combined into one group (“Not High,”  $n = 380$ ) and were compared to youth in the High risk to recidivate group ( $n = 739$ ). Youth who scored as High risk for recidivism had 1.4 times the odds of being a recidivist compared to youth who scored as Not High risk, when controlling for all other variables.<sup>viii</sup>

### *Which Characteristics Were Non-Predictive?*

When controlling for all other variables, the following characteristics were non-predictive (see Table 5):

- Escapes (while committed)
- Age at first adjudication
- Being committed for a VRA offense
- The commitment offense type (person, property, or other)
- Having a program in place at discharge
- Having a parole revoked
- The number of secure need factors
- Assessed substance abuse treatment needs at the time of commitment

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<sup>viii</sup> High overall risk to recidivate score on discharge CJRA: OR = 1.4, CI: 1.0-1.9,  $p = 0.03$ .

**Table 5: Characteristics Not Found to Be Predictive of Recidivism**

<b>Characteristics Not Found to Be Predictive of Recidivism</b>	
<b>Escapes (while committed)</b>	Not Predictive
<b>Age at First Adjudication</b>	Not Predictive
<b>VRA Commitment Offense</b>	Not Predictive
<b>Commitment Offense Type (person, property, or other)</b>	Not Predictive
<b>Program in Place at Discharge</b>	Not Predictive
<b>Parole Revocation</b>	Not Predictive
<b>Number of Secure Need Factors</b>	Not Predictive
<b>Assessed Substance Abuse Treatment Needs</b>	Not Predictive

**A Note on Males vs. Females**

Given the number of females ( $n = 184$  total,  $n = 58$  recidivists) in the Analysis Cohort, it was not possible to draw meaningful predictive comparisons between male and female recidivists, even after aggregating three years of the one-year post-discharge cohorts into one, larger cohort. In general, descriptive terms, females comprised 15% of the total one-year post-discharge population (males = 85%), and had a recidivism rate of 31.5% compared to males who had a recidivism rate of 43.4%.

# COLORADO JUVENILE RISK ASSESSMENT (CJRA)

## CJRA RESULTS

The Colorado Juvenile Risk Assessment is an actuarial instrument that is utilized by DYS to assist in predicting a youth's risk for recidivism. The CJRA was adapted from the Washington State Juvenile Court Assessment, which has been shown to be predictive of recidivism among juvenile probation populations in several validation studies. The CJRA was developed using 12 domains of risk and protective factors and has been established as a useful tool to identify psychosocial criminogenic domains susceptible to recidivist tendencies in individual youth [9].

Every youth committed to DYS is assessed for criminogenic risk and protective factors, both from a static and dynamic perspective. Static domains are based on historical data and thus cannot be improved with treatment (such as gender, criminal history, or history of substance abuse). In contrast, dynamic domains are based on a youth's current living and social factors, which can be targeted during commitment with individualized treatment and services in order to reduce criminogenic risk (such as attitudes and behaviors).

The CJRA is utilized by DYS to assess an individual's risk for recidivism at specified points in time. Typically, the CJRA is administered at assessment to assist in developing a treatment plan with programming that specifically targets individual treatment needs, and then is re-administered prior to parole and prior to discharge in order to measure any changes in assessed criminogenic risk. For the analysis that follows, the focus has been narrowed to CJRAs administered during assessment (pre-test) and at the time of discharge from DYS (post-test). Re-assessment of risk and protective factors at critical junctures during a youth's commitment and parole sentence allows assessment staff, client managers, and Multi-Disciplinary Teams (MDTs) to accurately gauge a youth's current risk for recidivism, and informs treatment decisions based upon a youth's most current needs. Assessing a youth's risk for recidivism prior to receiving treatment and services from DYS and upon discharging completely from DYS supervision also allows for an analysis of changes in individual risk for recidivism over time and after receiving targeted treatment and services. The primary goal of DYS is to decrease recidivism among its youth population by developing individualized treatment plans that target specific criminogenic risk factors, while simultaneously bolstering protective factors prior to discharge from the Division's supervision and care.

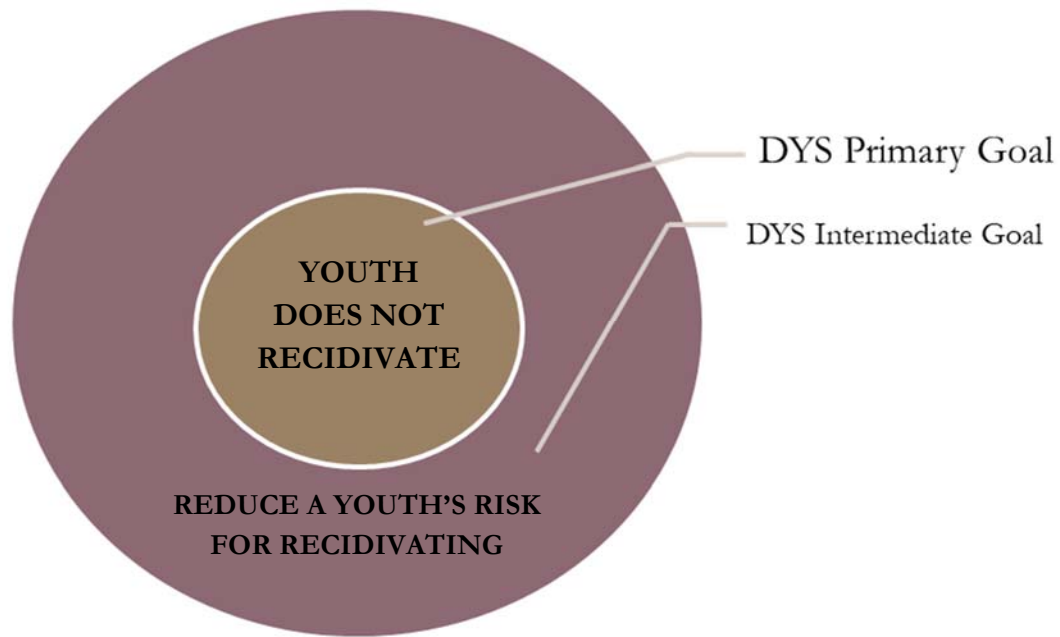
For most youth, a final CJRA re-assessment is completed upon discharge. This final risk assessment is called a youth's discharge CJRA. Nearly all of the 1,245 youth in the Analysis Cohort had a valid discharge CJRA (90%;  $n = 1,119$ ). A discharge CJRA is considered to be valid if the assessment was complete and was administered within 90 days of a youth's discharge date. An incomplete CJRA typically occurs when a youth refuses to complete the assessment.

While each youth is assessed several times throughout his/her commitment to DYS, the last CJRA administered is given the most weight in regard to predicting future recidivism. As the instrument measures a youth's risk for recidivism at a specific point in time, the CJRA completed *closest to discharge*



best describes a youth's risk trajectory when he/she is preparing to fully integrate back into the community upon fully discharging from DYS supervision. Furthermore, research indicates that a youth's most recent risk assessment is the most predictive of future re-offending behavior [10].

**Figure 5: DYS Goals for Committed Youth**



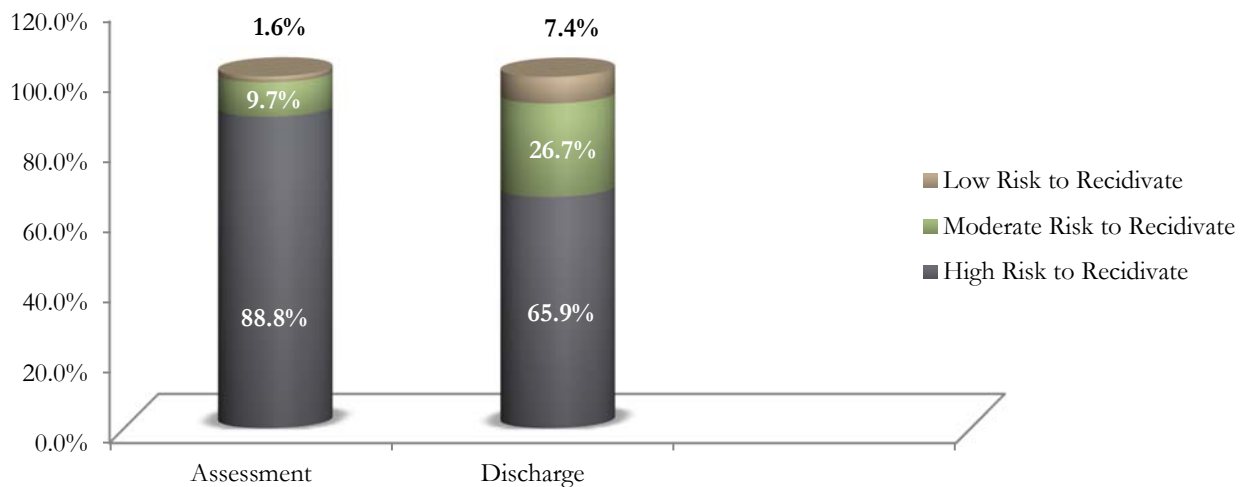
### **Risk Reduction from Commitment to Discharge**

The Division's primary goal is that youth who discharge from DYS do not recidivate (see Figure 5). In other words, the Division's primary goal is a lag measure, meaning the outcome is unknown until the one-, two-, and three-year post-discharge follow-up periods have concluded for each discharged youth. Although actual recidivism cannot be determined sooner, there is another measure (an intermediate goal) that *can* be measured while a youth is still serving his or her commitment sentence—the youth's *risk* for recidivism. Recidivism risk assessments, like the CJRA, can determine whether a youth's risk for recidivism has been reduced after receiving the treatment and services provided during commitment. Due to their criminal history, adjudicated youth have an increased risk of committing a new offense in the future. Criminogenic risk reduction is critical to overall reductions in recidivism, as reductions in criminogenic risk subsequently result in a reduction in the overall risk to re-offend [11] [12] [13]. Consequently, one of the Division's key intermediate goals is reducing criminogenic risk. Only youth with both a valid assessment and discharge CJRA were included in the analysis that follows ( $N = 1,094$ ).

## CJRA OVERALL RISK LEVEL

The vast majority of youth committed to DYS score as High risk to re-offend in the future on the assessment CJRA. Among the Analysis Cohort, 88.8% scored as High risk to recidivate at assessment ( $n = 971$ ), and only 11.2% scored as either Low or Moderate risk ( $n = 123$ ) (see Figure 6). When examined at discharge, however, 65.9% of the Analysis Cohort scored as High risk ( $n = 721$ ), and 34.1% scored as Low or Moderate risk ( $n = 373$ ). The Analysis Cohort experienced a 25.7% ( $n = 250$ ) reduction in High risk to recidivate scores, and even more dramatic gains in the Moderate (175.5%;  $n = 186$ ) and Low risk (376.5%;  $n = 64$ ) scores.

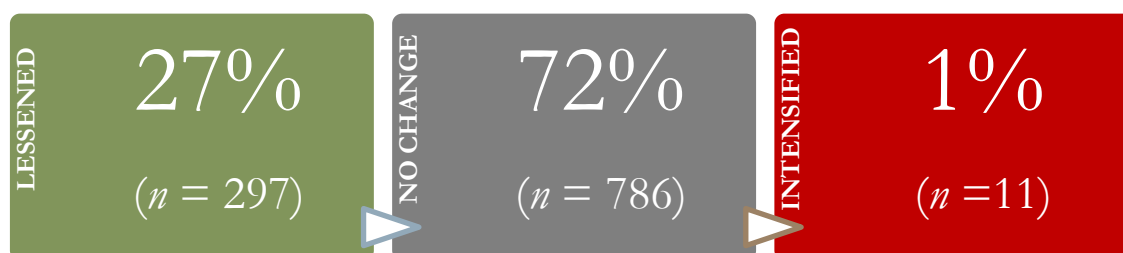
**Figure 6: CJRA Overall Risk Level Changes from Assessment to Discharge (Analysis Cohort)**



The results of the analysis revealed that the Analysis Cohort demonstrated a statistically significant reduction in recidivism risk (re: CJRA levels) from assessment to discharge after receiving treatment and services from DYS ( $\chi^2 = 433.617$ ;  $df = 4$ ;  $p < 0.000$ ). Unfortunately, while the percentage of High risk youth was significantly reduced from commitment to discharge, the majority of youth maintained a High risk score at discharge.

For many of these youth who did not have a change in their risk level, their individual score may actually have decreased, but the change was not sufficient to move them to a lower risk level category. When examined further (see Figure 7), over one quarter of youth (27%) lessened their risk level from DYS assessment to discharge.

Figure 7: CJRA Overall Risk Level Changes (Lessened, No Change, Intensified) (Analysis Cohort)



The observed reduction in risk levels includes those who initially scored as High risk at assessment and then scored as Moderate risk at discharge, those who moved from Moderate to Low risk scores, or even those who moved from High to Low risk scores. The largest percentage of youth scored as the same risk for recidivism at assessment and discharge (72%). In other words, most committed youth scored as High risk for recidivism at assessment, and discharged from DYS supervision with the same High risk. Finally, one percent (1%,  $n = 11$ ) of youth in the Analysis Cohort experienced an intensified risk level between assessment and discharge.

This last finding is relevant as it relates to the *Do No Harm* philosophy in corrections. The Division strives to reduce risk among its juvenile population, but is also dedicated to ensuring that lower level offenders are not at an increased risk for recidivism at discharge. As the third box of Figure 7 illustrates, roughly 1% of youth in the Analysis Cohort ( $n = 11$  youth) increased their risk to recidivate between assessment and discharge. Each of these youth were assessed as Moderate risk upon commitment to DYS and scored as High risk to recidivate at discharge. A substantial body of literature points to the iatrogenic effects of incarcerating lower risk youth as well as treating Low risk youth with intensive services [14]. As Social Learning Theory suggests, these lower risk youth may learn anti-social skills from High risk youth that they may not have otherwise been exposed to if they were not incarcerated [15] [16].

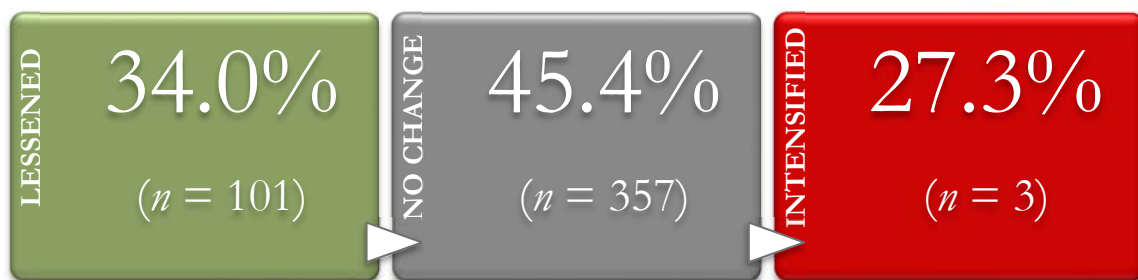
#### Recidivism Rates by CJRA Overall Risk Level Changes

In general, among those youth with observed decreases in risk level from assessment to discharge, it can be inferred that DYS treatment was effective in terms of targeting the risk factors associated with recidivism. In contrast, those youth who did not have a change in risk level may not have responded as positively to treatment. Finally, treatment was perhaps deleterious to the 11 youth who experienced an intensified (or increased) risk level.

The recidivism rate for youth with a lessened risk level confirms that the change in risk level itself can have an effect on recidivism. As illustrated in Figure 8, youth with a reduced risk score after receiving DYS treatment and services had a recidivism rate of 34.0% one year after discharge (lower than the

average rate of 41.6% for the Analysis Cohort). Youth with no change in risk score had a recidivism rate of 45.4% one year after discharge, slightly higher than the one-year rate for the Analysis Cohort. The 11 youth in the Analysis Cohort who had an aggravated risk score after being committed to DYS had a recidivism rate of 27.3% one year after discharge, although caution should be used when interpreting outcomes with such a small group ( $n = 3$  recidivists). The observed differences in recidivism rates compared by risk level changes from assessment to discharge were statistically significant ( $\chi^2 = 12.523$ ;  $df = 2$ ;  $p = 0.002$ ). An investigation into the eight youth with aggravated CJRA risk levels who had not recidivated revealed that four had committed a recidivist act after their one-year post-discharge follow-up period ended and will be captured in future follow-up time periods. Among the remaining 4, 1 discharged in FY 2017-18, 2 discharged in FY 2016-17, and the remaining 1 discharged in FY 2015-16. This is consistent with the Time to Recidivist Offense data presented in Figure 24 (see page 52), where 96% of youth who recidivate do so within 24 months of discharge.

**Figure 8: Recidivism Rates by CJRA Overall Risk Level Changes (Analysis Cohort)**



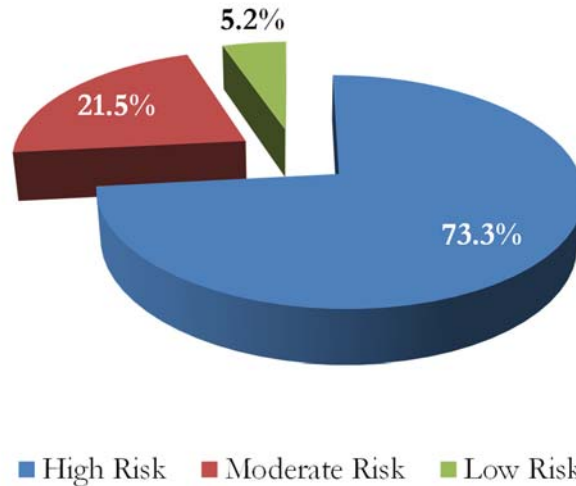
### Sensitivity of the CJRA

Human behavior is variable by nature, and thus incredibly difficult to predict with accuracy [17]. The use of actuarial risk assessments provides some insight into the probability that those who possess certain characteristics might re-offend in the future [18]. From a research perspective, the “sensitivity” of an assessment tool is a term used to describe the number of cases that are correctly identified by the tool. In this assessment, the term sensitivity is used to describe the proportion of youth in each cohort who recidivated and also scored as High risk to recidivate on the CJRA. If the CJRA is sufficiently sensitive, it should correctly identify a large percentage of youth who eventually recidivate as High risk to recidivate.

As shown in Figure 9, 73.3% of recidivists in the Analysis Cohort scored as High risk to recidivate on their discharge CJRA. Comparatively, only 5.2% of youth who scored as Low risk on the discharge CJRA committed a recidivist act. These findings indicate that the CJRA is sensitive enough to correctly identify nearly three quarters of youth who go on to commit a recidivist act.

Figure 9: CJRA Discharge Overall Risk Levels for Recidivists (Analysis Cohort)

## Recidivist Discharge CJRA Risk Scores



### Positive Predictive Value of the CJRA

Within the context of this study, the positive predictive value of the CJRA is defined as the proportion of youth who score as High risk who actually go on to recidivate. If the CJRA is accurately identifying youth who are at the highest risk for recidivism, one would expect to see a large proportion of youth with High risk scores eventually recidivate. As shown in Table 6, among the population of youth who scored as High risk to recidivate, 46.9% ( $n = 338$ ) had recidivated within one year (5.3% higher than the Analysis Cohort recidivism rate of 41.6%). Among those youth who scored as Moderate risk to recidivate, 33.9% ( $n = 99$ ) had recidivated within one year (7.7% lower than the recidivism rate among the Analysis Cohort), and 29.6% of youth who scored as Low risk to recidivate ( $n = 24$ ) had recidivated within one year (12.0% lower than the Analysis Cohort recidivism rate). In summary, a higher rate of recidivism was observed among youth who scored High risk to recidivate compared to youth with Moderate or Low risk scores in each cohort, and these differences are statistically significant ( $\chi^2 = 19.965$ ;  $df = 2$ ;  $p < 0.000$ ). Generally speaking, the higher rate of recidivism observed among High risk youth indicates that the CJRA is internally valid and is measuring what it is intended to measure: youth who are at greater risk to recidivate in the future. In addition, the CJRA also appears to be externally valid in that it is possible to use the risk scores generated to assist in predicting future recidivism among the Division's youth population (e.g., predictive validity).

**Table 6: Recidivism Rates by Discharge CJRA Risk Level (Analysis Cohort)**

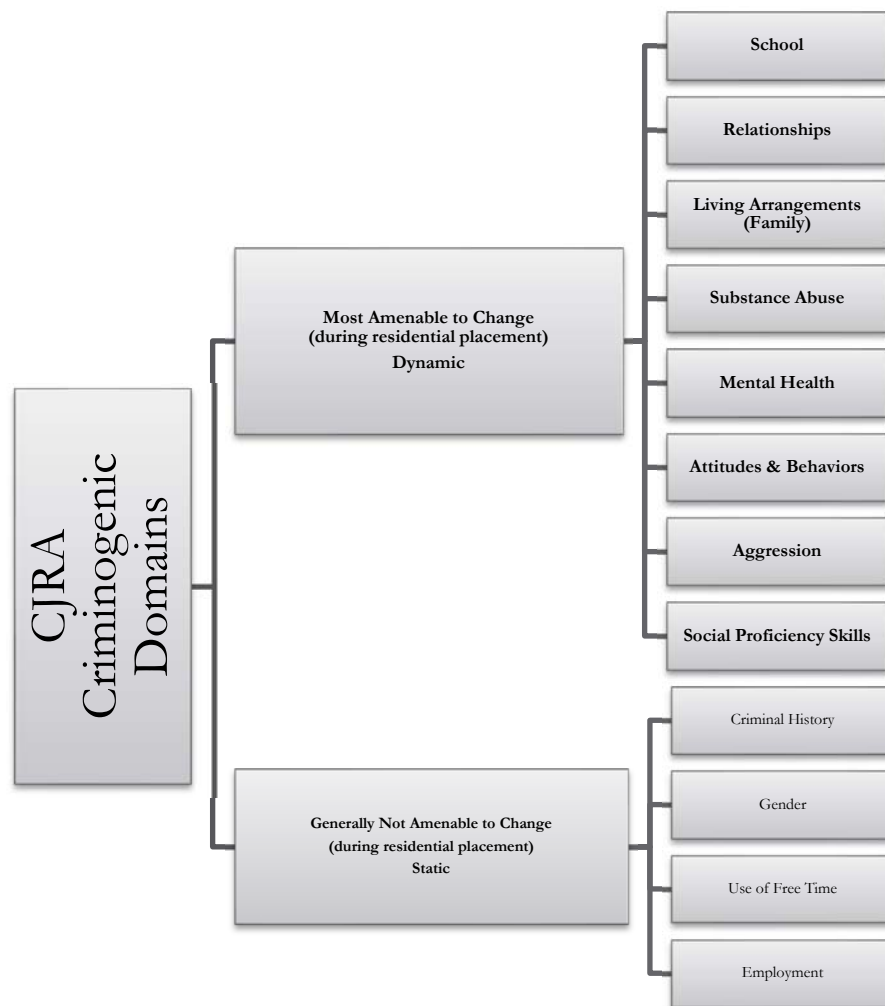
Recidivism Rate		
	Analysis Cohort	
Discharge CJRA Risk Level <sup>1</sup>	%	<i>n</i>
<b>High (risk to recidivate)</b>	<b>46.9%</b>	338
<b>Moderate (risk to recidivate)</b>	<b>33.9%</b>	99
<b>Low (risk to recidivate)</b>	<b>29.6%</b>	24
Total recidivism rate for youth with valid CJRAs	<b>42.1%</b>	461

<sup>1</sup> Only youth with a valid discharge CJRA were included in the analysis.

#### DOMAIN RISK LEVEL

While the prior section focused on the CJRA overall risk level for recidivism (e.g.: Low, Moderate, High), the current section will focus on individual criminogenic domains within the CJRA. Specifically, the analysis will center on the criminogenic domains on which committed youth most frequently score as High risk. In an effort to reduce the overall likelihood of re-offending, youth committed to DYS have individualized treatment plans developed to specifically target their specific criminogenic needs. The CJRA is rooted in the 12 criminogenic domains presented in Figure 10.

Figure 10: Colorado Juvenile Risk Assessment Domains



Of the twelve CJRA domains, DYS focuses treatment plans on the eight dynamic domains that are most amenable to change during a youth’s commitment sentence: School, Relationships, Living Arrangements (Family), Substance Abuse, Mental Health, Attitudes & Behaviors, Aggression, and Social Proficiency Skills. These eight dynamic domains are pertinent to this analysis as they are the only domains where change can be influenced and measured with consistency through treatment and services. The remaining four domains are generally not amenable to change, while Criminal History and Gender are static and cannot be changed with treatment or services. Use of Free Time and Employment are generally not amenable to change while youth are in secure residential placement, but may become so during parole or post-discharge.

#### REDUCTIONS IN RISK FACTORS OVER TIME

The analysis in this section focuses on calculated CJRA risk scores at the time of discharge. On average, roughly 80% of the youth in the Analysis Cohort were committed to DYS and assessed as being High

risk on four of the eight domains. At time of discharge, this average decreases to fewer than half scoring High risk on these same four domains (see Figure 11).

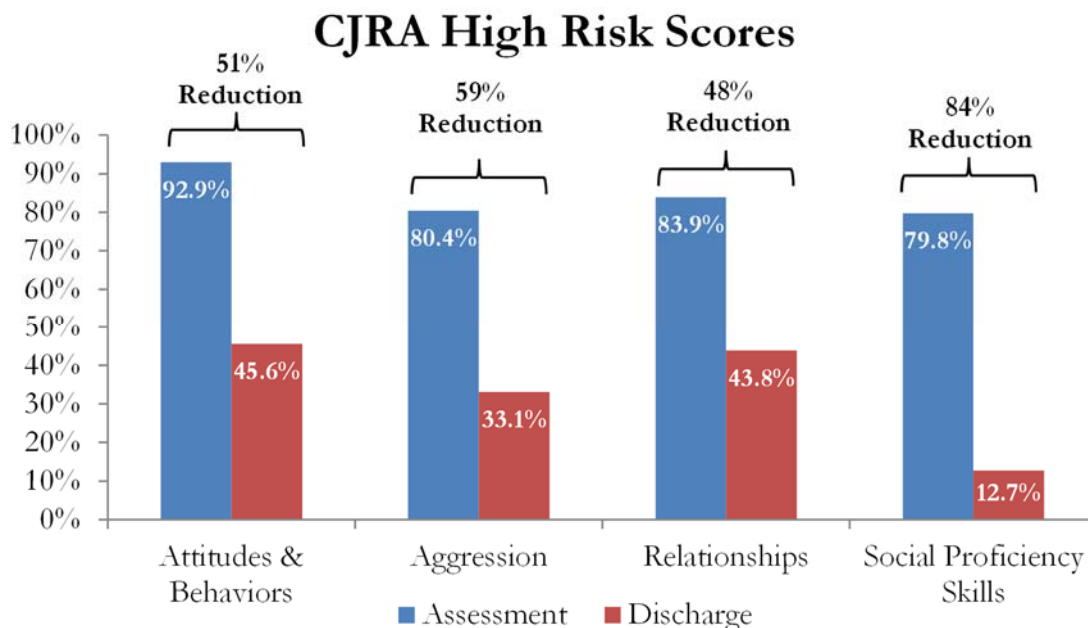
### Assessment CJRA

On the assessment CJRA, the most frequent High risk domains included Attitudes & Behaviors (92.9% scored as High risk;  $n = 1,016$ ), Aggression (80.4% scored as High risk;  $n = 880$ ), Relationships (83.9% scored as High risk;  $n = 918$ ) and Social Proficiency Skills (79.8% scored as High risk;  $n = 873$ ).

### Discharge CJRA

On the discharge CJRA, each of these same domains experienced sizable reductions in the number of youth scoring as High risk to recidivate compared to the assessment CJRA (see Figure 11). At discharge, 45.6% of youth with valid assessment and discharge CJRAs scored as High risk on the Attitudes & Behaviors domain ( $n = 499$ ), a 51% reduction; 33.1% scored as High risk on the Aggression domain, a 59% reduction ( $n = 362$ ); 43.8% scored as High risk on the Relationships domain ( $n = 479$ ), a 48% reduction; and only 12.7% scored as High risk on the Social Proficiency Skills domain, an 84% reduction ( $n = 139$ ).

**Figure 11: Percentage of Youth Who Scored High Risk on Both Assessment & Discharge CJRAs, by Most Frequent High Risk Domain**



### CJRA DOMAIN RISK FOR NON-RECIDIVISTS VS RECIDIVISTS

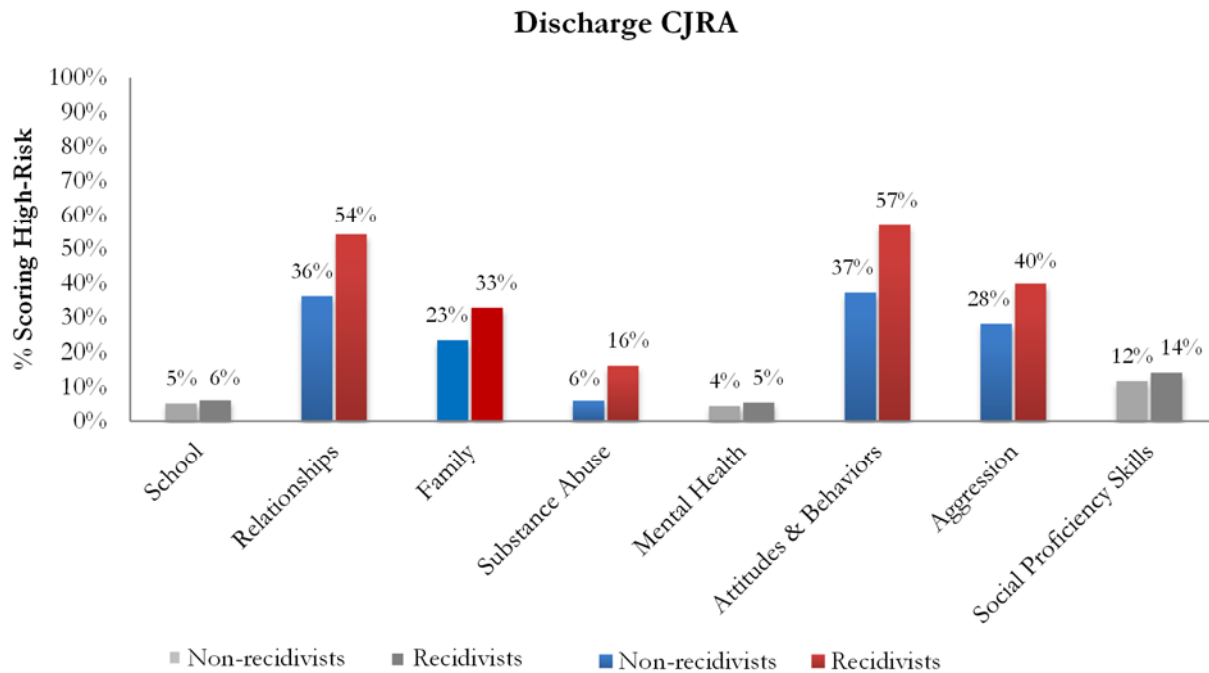
In this section, the analysis will focus on the relationship between individual criminogenic risk factors (e.g.: CJRA domains) and the recidivism rate for youth who scored High vs. Not High risk (Low or Moderate risk). The percentage of recidivists who scored High risk on each domain was compared to



the percentage of non-recidivists who were High risk, with the goal of determining if scoring High risk on certain domains was more characteristic of recidivists over time. The shading in Figure 12 is intended to illustrate which domains were statistically significant. Only the domains that demonstrated a statistically significant difference between the percentage of non-recidivists and recidivists who scored High risk in that domain appear in color.<sup>ix</sup>

*Discharge CJRA*

**Figure 12: Percentage of Non-Recidivists vs. Recidivists Who Scored High Risk on the Discharge CJRA, by Domain**



On the discharge CJRA, Figure 12 shows the percentage of non-recidivists who scored High risk in each CJRA domain compared to the percentage of recidivists who scored High risk. It is imperative to understanding patterns of juvenile recidivism to identify and compare risk factors for recidivism in addition to the demographics of those who ultimately went on to recidivate. These differences help to reveal some of the factors driving subsequent criminogenic behavior within the population. As

<sup>ix</sup> As the CJRA administered closest to discharge (e.g.: the discharge CJRA) is considered to be the most valid for predicting who is at the greatest risk for recidivating, the analysis was limited to between groups differences in the risk scores on this discharge CJRA.

illustrated in Figure 12, a larger percentage of recidivists scored as High risk for recidivism on all eight of the CJRA domains.

### *Relationships*

It is important to remember that the discharge CJRA happens after a youth has been on parole in the community for at least six months. This allows time for youth to regress to associating with anti-social peers and social networks within their neighborhoods, which can influence the percentage of youth who score High risk on this domain at discharge. Peer group influence is perhaps at its strongest during the teenage years when adolescents are seeking to define and establish themselves, and the Relationships domain is an indicator of the degree to which a youth's relationships place him/her at risk for recidivism. On the discharge CJRA, 54.2% of youth who ultimately went on to recidivate scored High risk on the Relationships domain compared to 36.2% of those who did not recidivate ( $\chi^2 = 35.319$ ;  $df = 1$ ;  $p < 0.000$ ) [19].

### *Family*

Having prosocial family members who are both present and engaged in a youth's transition back to the community and beyond is critical to a youth's future success. Conversely, family disorganization, family members who have attitudes that are tolerant toward crime and delinquency, who use illicit substances or abuse legal substances, are abusive, or who are otherwise inconsistently or negatively involved in a youth's life are real risk factors for future criminality. On the discharge CJRA, 32.8% of youth who eventually went on to recidivate scored High risk on the Family domain compared to 23.4% of youth who did not recidivate ( $\chi^2 = 11.802$ ;  $df = 1$ ;  $p = 0.01$ ) [16] [17].

### *Substance Abuse*

Substance abuse is a pervasive problem, particularly among juvenile populations, and exponentially among those with an early onset of alcohol, tobacco, or other drug use. The Alcohol and Drugs domain of the discharge CJRA measures current substance use as a risk factor for recidivism. When youth are committed to DYS, it is expected that youth do not have access to illicit substances or to substance using peers. Thus, given the threat of being caught violating this expectation and receiving sanctions and/or modified treatment plans, one would expect the current Alcohol and Drug use reported on the discharge CJRA to be quite low while youth remain under DYS supervision. Conversely, once a youth has discharged and no longer faces the same consequences for substance use, it would not be surprising for youth with a history of substance abuse to re-engage in substance use behavior with peers. On the discharge CJRA, 16.1% of youth who ultimately went on to recidivate scored as High risk on the Alcohol and Drugs domain, compared to 6.0% of those who did not recidivate ( $\chi^2 = 29.311$ ;  $df = 1$ ;  $p < 0.000$ ) [20] [21] [22].

### *Attitudes and Behaviors*

The same concepts described for the Relationships and Family domains are true for the Attitudes and Behaviors domain. Many youth relapse back into formerly established behaviors when they re-enter their homes, neighborhoods, and are surrounded by members of their community. Often times a youth

returning home will be confronted with the same anti-social behaviors or attitudes that are tolerant of crime or delinquency that they espoused prior to commitment. Unfortunately, at this stage in the youth's commitment, many of the therapeutic advances made while in residential placement are in jeopardy of being reduced. On the discharge CJRA, 57.0% of youth who ultimately went on to recidivate scored High risk on the Attitudes and Behaviors domain compared to 37.3% of those who did not recidivate ( $\chi^2 = 42.014$ ;  $df = 1$ ;  $p < 0.000$ ).

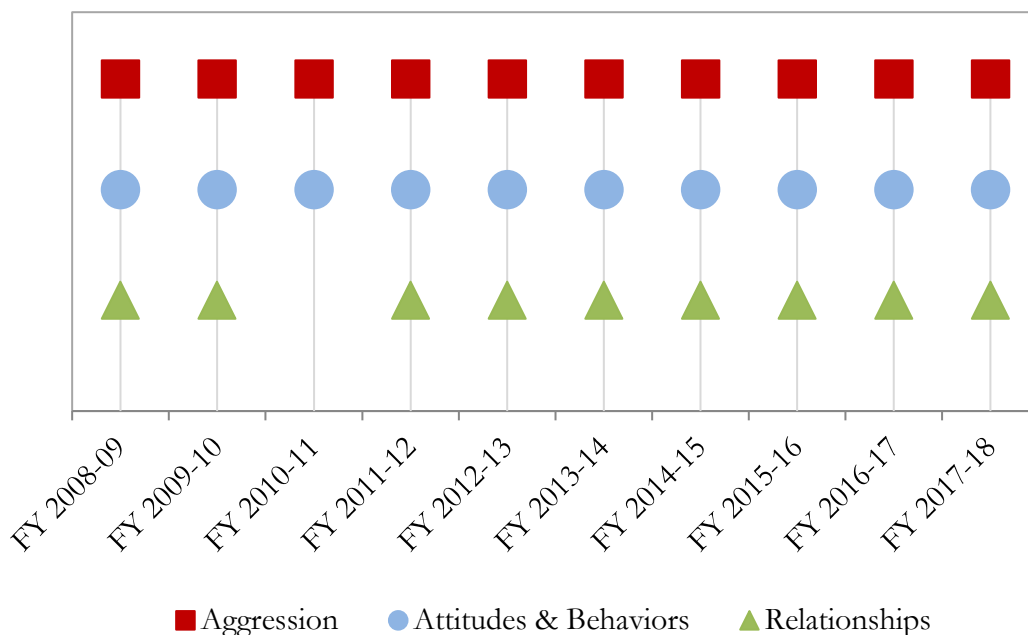
*Aggression*

On the discharge CJRA, 39.9% of youth who ultimately went on to recidivate scored High risk on the Aggression domain compared to 28.1% of those who did not ultimately recidivate ( $\chi^2 = 16.756$ ;  $df = 1$ ;  $p < 0.000$ ). It has long been established that incarcerated offenders tend to score higher on assessments of aggression than the general population. Youth who are committed to DYS have typically experienced an array of aggression and complex trauma in their lives, whether it was perpetrated or witnessed in their neighborhoods, schools, or even at home. Past experiences with violence and complex trauma can lead to aggressive reactions to stress or other confrontations [21].

*Consistently Predictive CJRA Domains: Aggression, Attitudes & Behavior, and Relationships*

Discharged youth scoring High risk on the CJRA Aggression and Attitudes & Behaviors domains have proven **for ten consecutive years** to be at statistically higher risk of recidivating, while discharged youth scoring High risk on the Relationships domain have proven for nine of ten consecutive years to be at statistically higher risk of recidivating (see Figure 13).

**Figure 13: Consistently Predictive CJRA Domains**



# OFFENSE TYPES

## VRA AND OTHER CRIMES

This section of the analysis focuses exclusively on recidivists, and examines both the commitment offense (the offense that resulted in a DYS sentence) as well as the associated recidivist act(s). All recidivists in the one-, two-, and three-year cohorts were included in the analysis, for a total of 671 unique recidivists.<sup>x</sup> Collectively, the 671 unique recidivists in the three discharge cohorts were either adjudicated or convicted for 2,273 recidivist acts over the follow-up periods, or roughly 3 recidivist acts per recidivist ( $\mu = 3.39$ ). Nearly two-thirds of recidivists ( $n = 446$ ; 66.5%) committed three or fewer recidivist acts, while a handful of outliers ( $n = 25$ ) committed 10 or more recidivist acts. Further investigation into those recidivists with a large number of recidivist acts revealed a pattern in which these youth committed more severe offenses (e.g.: a string of robberies and sexual assaults, a violent murder, aggravated felonies and weapons charges, etc.) which resulted in a large number of same-day filings for a single court case number (44 in the largest outlier). Fortunately, these 25 outliers represent fewer than 3.7% of recidivists, and only 2.0% of all youth who discharged from DYS between FY 2015-16 and FY 2017-18.

### Type of Commitment Offenses vs. Recidivist Offenses

The following analysis examines the type of offense for which a youth was committed to DYS and compares it to the recidivist offense(s) that occurred during the follow-up periods. The types of offenses examined delineate between those that fall under the VRA, and other felonies and misdemeanors.

Of the 671 recidivists in the three discharge cohorts followed for one, two, and three years post-discharge, the majority were originally sentenced to DYS on felony adjudications: 53.8% felony vs. 46.2% misdemeanor (see Figure 14). Of these same commitment offenses, 39.5% ( $n = 265$ ) were crimes that fell under the VRA, while the remaining 60.5% ( $n = 406$ ) were non-VRA offenses (see Figure 15). This finding is consistent with those described in previous reports, where property crimes (which do not fall under the VRA) were consistently found to be the most common commitment offense.

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<sup>x</sup> The recidivists analyzed in this section are not the same as those in the Analysis Cohort presented in previous sections. The analysis in this section includes all youth identified as recidivists in the one-, two-, and three-year post discharge cohorts, and follows them for *one, two, and three years post-discharge*, respectively. The Analysis Cohort follows all youth who discharged from the Division over three Fiscal Years for *one year post-discharge*, and does not follow youth out to three years post discharge. Thus, data presented in this section will not match previously presented data as it was drawn from a different data set and covered a different period of time. There were six recidivist youth who discharged in more than one year. For these youth, only their most recent commitment and subsequent discharge were included in the analysis.

Figure 14: Commitment Offense for Recidivists: Felonies and Misdemeanors ( $N = 671$ )

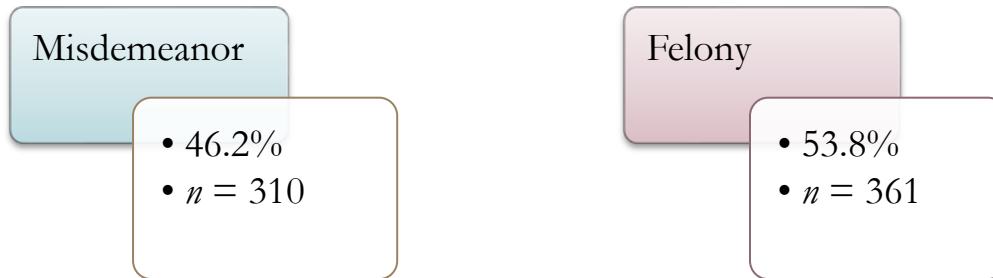
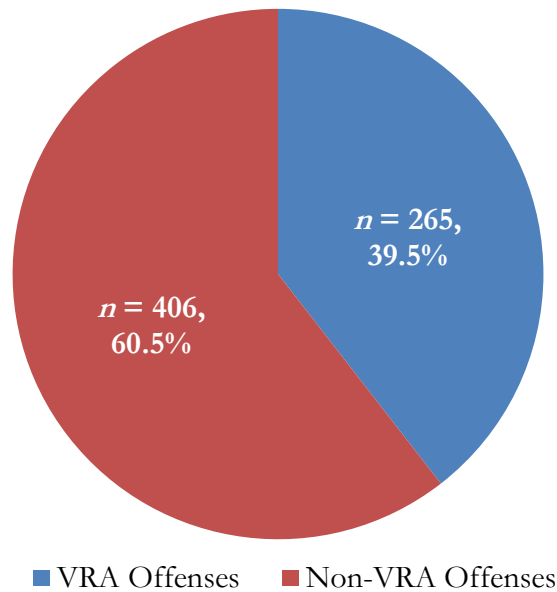


Figure 15: Commitment Offense for Recidivists: VRA and Other Offenses ( $N = 671$ )



A further examination of non-VRA commitment offenses ( $n = 406$ ) revealed that the majority (60.3%,  $n = 245$ ) were felony offenses (see Figure 16). Looking specifically at those 265 commitment offenses that fell under the VRA, the majority (56.2%) were misdemeanors compared to felonies (43.8%) (see Figure 17).

Figure 16: Commitment Offense for Recidivists: Non-VRA Offenses (N= 406)

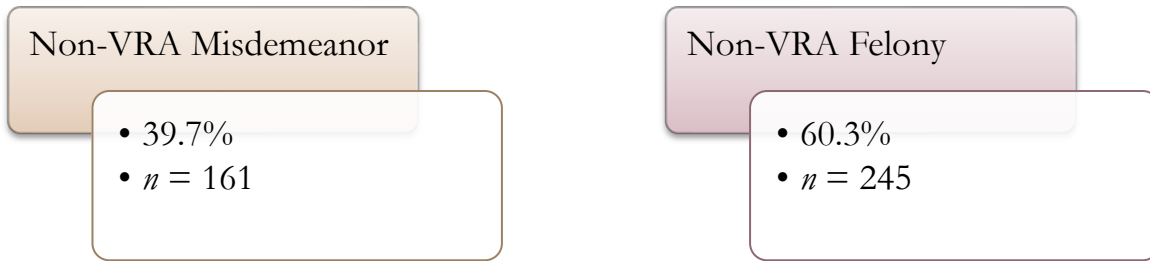
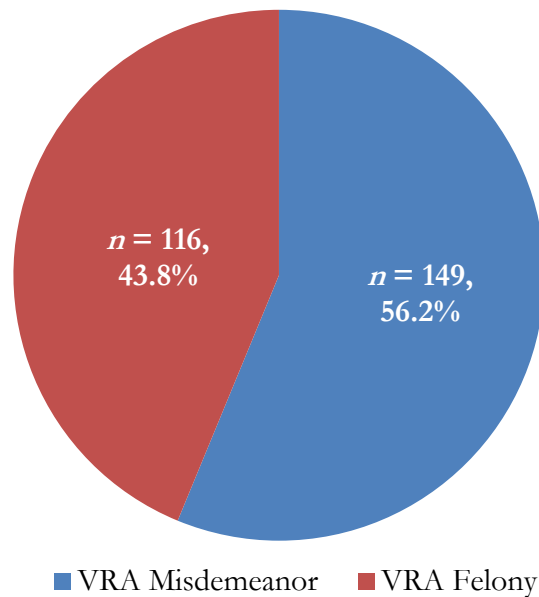


Figure 17: VRA Commitment Offense for Recidivists (N= 265)



Single commitment offenses are examined for all youth in this report, while recidivists can and do commit multiple recidivist acts. Thus, the number of recidivist acts reported in this section ( $n = 2,273$ ) will naturally be greater than the number of commitment offenses in each category examined. Contrary to what was observed with commitment offenses, the majority of recidivist acts committed over each of the follow-up time periods were misdemeanors (54.2%) compared to felonies (45.8%) (see Figure 18). Generally speaking, misdemeanors are considered to be less serious offenses than felonies. Relatively few recidivist acts were crimes that fell under the VRA (26.7%), with nearly three-quarters (73.3%) of all recidivist acts being non-VRA offenses (see Figure 19). Looking at those 1,667 recidivist acts that did not fall under the VRA, the majority were misdemeanors (59.1%) compared to felonies (40.9%) (see Figure 20)

Figure 18: Recidivist Acts ( $N = 2,273$ )

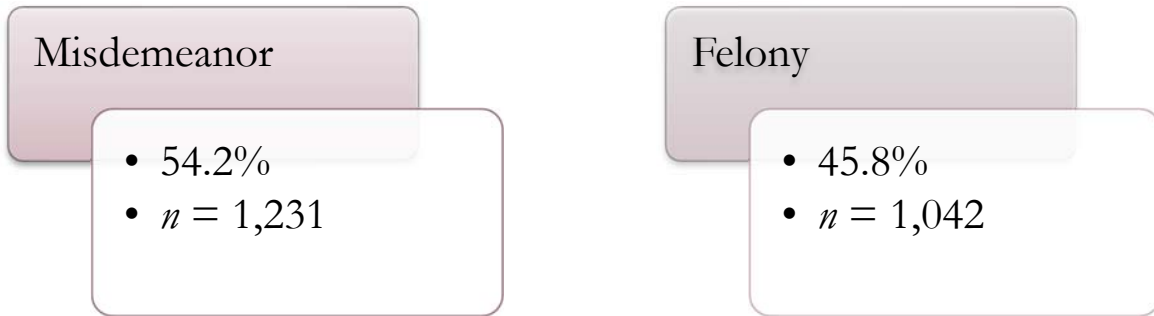


Figure 19: Recidivist Acts: VRA and Other Offenses ( $N = 2,273$ )

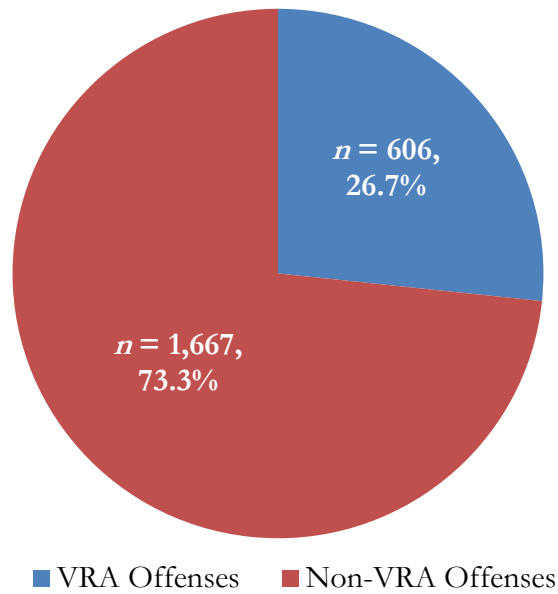
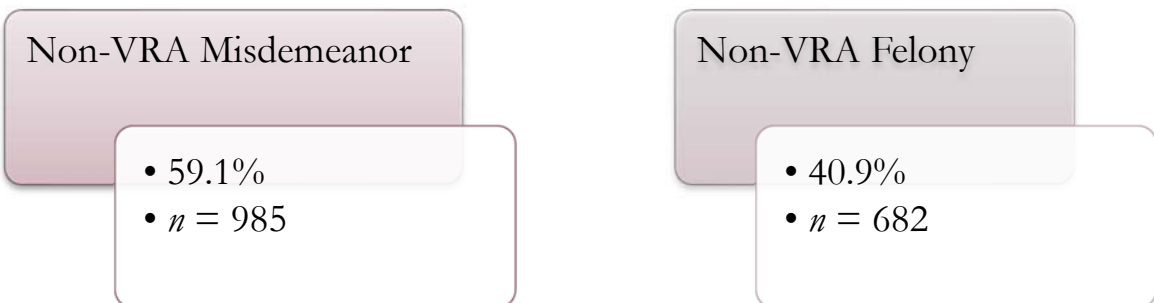
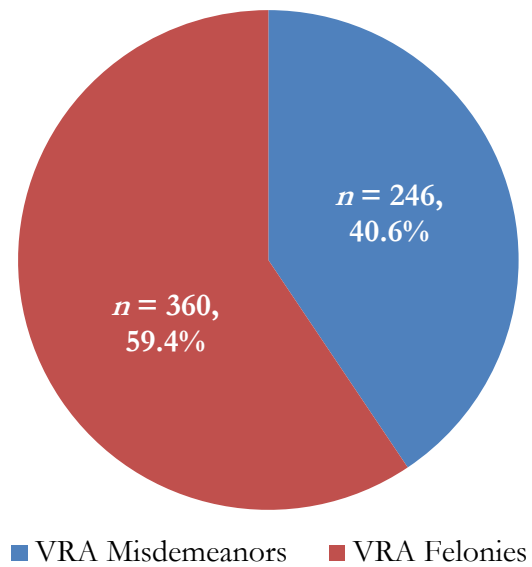


Figure 20: Non-VRA Recidivist Acts ( $N = 1,667$ )



Looking exclusively at those 606 recidivist acts that fell under the VRA, the majority were felonies (59.4%) compared to misdemeanors (40.6%) (see Figure 21).

**Figure 21: VRA Recidivist Acts ( $N = 606$ )**





# TYPES OF OFFENSES

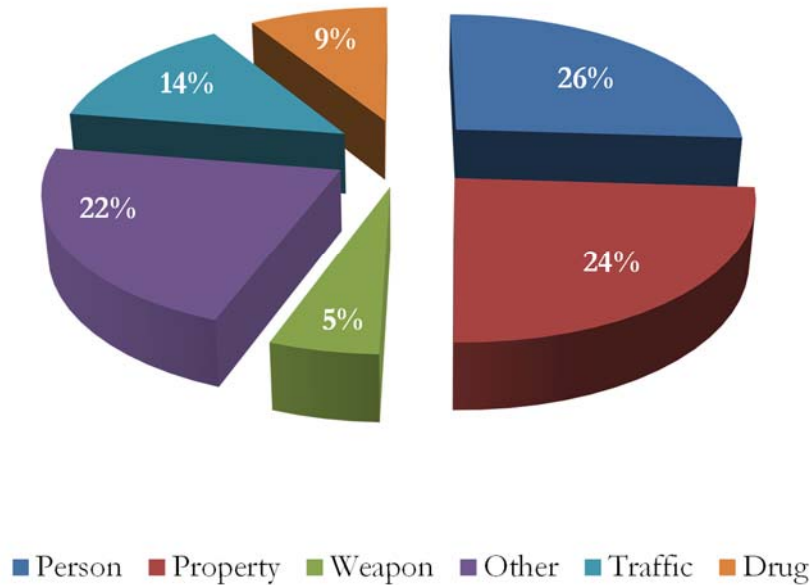
## COMMITMENT OFFENSES VS. RECIDIVIST ACTS

An analysis was conducted regarding the different types of recidivist acts perpetrated among the Analysis Cohort. Specifically, every recidivist act committed by each of the 671 recidivists in the three discharge cohorts was examined by type and compared to the commitment offense. As stated in a previous section of this report, the total number of recidivist acts included in the analysis will naturally be greater than the number of commitment offenses.

There are several different categories into which offenses can be classified: person, property, weapon, traffic, drug, and other. Person offenses involve harm to another person and are considered the most severe type of offense. Property offenses involve the violation, theft, or destruction of property, while weapon offenses are violations of statutes or regulations that control dangerous or deadly weapons. Drug offenses can include the manufacture, sale, or possession of specific quantities of illicit substances or legal prescription medications without a valid prescription. Traffic offenses, not to be confused with traffic violations (e.g.: speeding or parking tickets), include offenses such as driving under restraint, driving while ability impaired, and vehicular eluding. Other offenses among the Analysis Cohort included: accessory to crime, aiding escape, minor in possession of alcohol (amended to a misdemeanor offense), providing alcohol to a minor, contraband offenses, contributing to the delinquency of a minor, criminal possession of a financial device, criminal possession of identification, criminal impersonation charges, aggravated cruelty to animals, disorderly conduct, escape charges, false imprisonment, false reporting, unauthorized financial transaction, fishing without a license (unclassified misdemeanor), forgery charges, ID theft, impersonating a public servant, limited gaming offenses, obstruction offenses, open container violations, providing false information to a pawnbroker, perjury, attempting to influence a public servant offenses, resisting arrest, rioting in a detention facility, other riot offenses, providing false information for the sale of secondhand property offenses, sex offender registration offenses, tampering offenses, obstructing telephone service, violation of a protection order offenses, violation of bail bond conditions, and witness tampering/intimidation/retaliation offenses.

Of the 2,273 recidivist acts committed by youth in the three discharge cohorts, the majority 26% ( $n = 590$ ) were crimes committed against persons (see Figure 22), followed closely by property crimes at 24% ( $n = 555$ ). Of the remaining recidivist acts, 5% ( $n = 119$ ) were weapons offenses, 22% ( $n = 497$ ) were Other offenses, 14% ( $n = 309$ ) were Traffic offenses, and 9% ( $n = 203$ ) were Drug offenses.

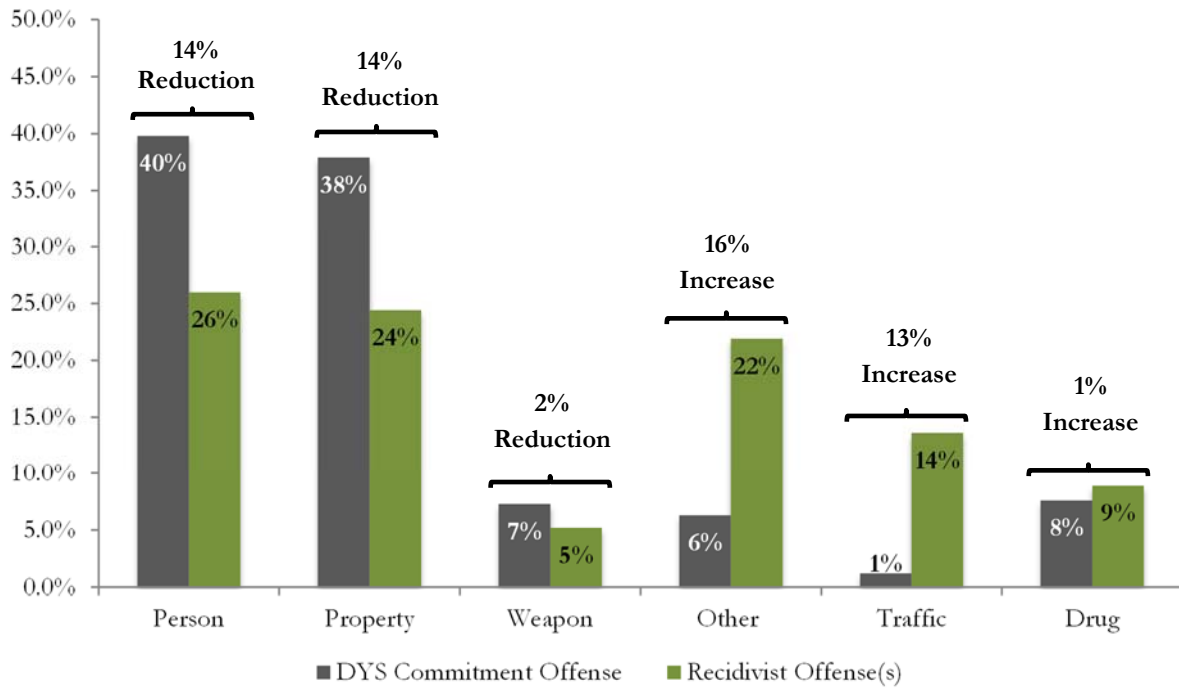
**Figure 22: Types of Recidivist Offenses (N = 2,273)**



As shown in Figure 23, among recidivists, the most common types of commitment offenses were person offenses (40%) and property offenses (38%). Crimes committed against persons were the most common DYS commitment offense type and the most common recidivist act (26%).

It should be noted that the percent of recidivist acts that were person offenses (26%) decreased by 14% compared to the percent of commitment offenses that were person offenses (40%). Similar reductions were noted between commitment and recidivist property and weapon offenses: 38% of commitment offenses were property offenses, but only 24% of recidivist acts were property offenses (14% reduction), while weapon offenses declined from 7% of commitment offenses to 5% of recidivist acts (2% reduction). Recidivist acts classified as Other offenses demonstrated a 16% increase compared to the commitment offense (22% and 6%, respectively). Traffic offenses increased by 13% from 1% of commitment offenses to 14% of recidivist acts. Drug offenses experienced a 1% increase comparing commitment (8%) to recidivist offenses (9%), but remained a relatively small number of the total recidivist acts ( $n = 203$ ).

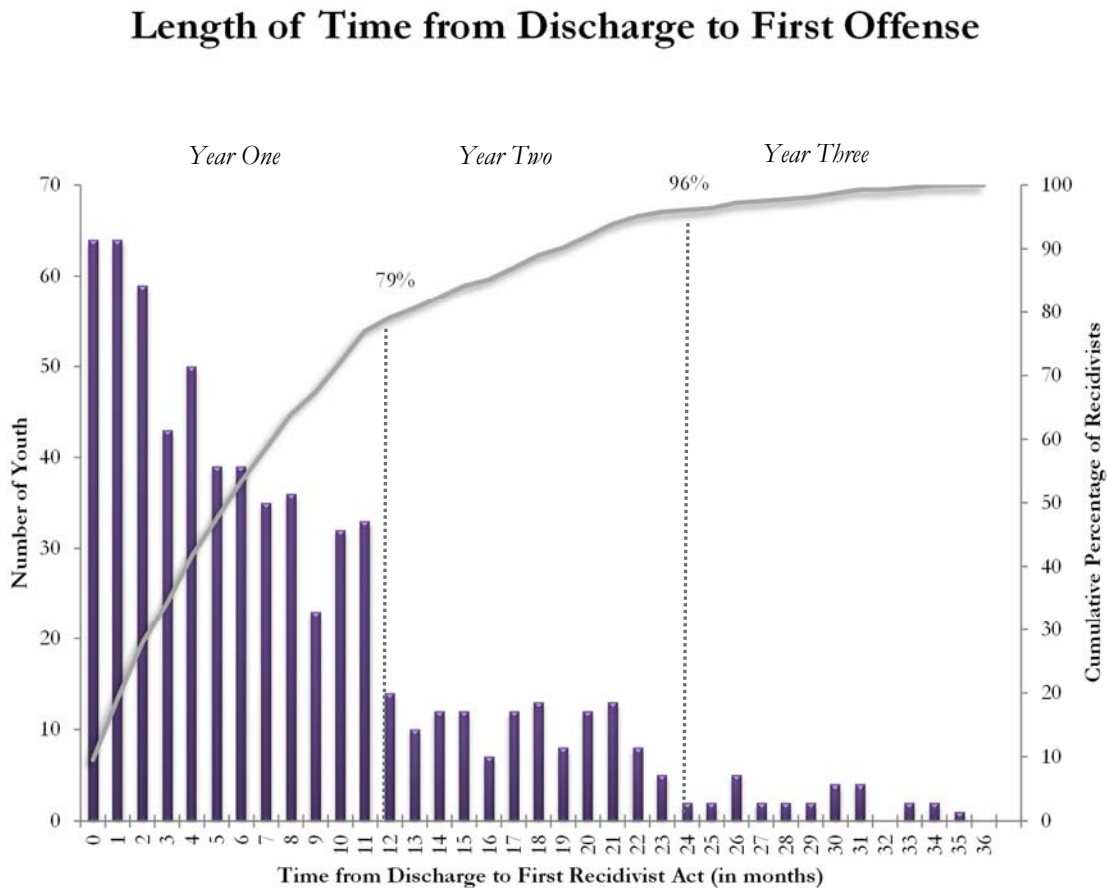
**Figure 23: Types of Commitment Offenses vs. Recidivist Offenses**



# TIME TO FIRST RECIDIVIST OFFENSE

Eligible recidivists from all three discharge cohorts (FYs 2015-16, 2016-17, and 2017-18) were included in the analysis of the length of time from discharge to the onset of the first recidivist offense ( $N = 671$ ). As described in the Offense Type section, only the most recent commitment and subsequent discharge were included in the analyses that follow for the six recidivist youth who discharged in more than one year. For youth who committed a recidivist act within the prescribed time periods ( $N = 671$ ), Figure 24 depicts the points in time at which the first new offense occurred. As shown in the histogram, more than three-quarters of youth who recidivated did so within the first year after discharge (79%). At two years post-discharge, nearly all first recidivist acts had occurred (96%). Only 26 recidivists committed their first recidivist act between 25 and 36 months post-discharge. This corresponds to roughly 3.9% of recidivists discharged over 3 Fiscal Years. Figure 24 illustrates that as time passes, fewer and fewer youth commit their first recidivist act. The literature is robust with findings supporting the desistance from criminal activity, or “aging out” of crime and delinquency. In the figure that follows, only the first recidivist offense was reported among those youth with multiple recidivist offenses.

**Figure 24: Time to First Recidivist Act**



# CHRONICITY OF RECIDIVIST OFFENSES

## Time between Discharge and Last Recidivist Act

This section will examine the totality and frequency of recidivist acts rather than identifying a single, most serious offense. This type of analysis, known as a study of the chronicity of criminal acts, has been generally accepted within the field of criminology as a highly informative and useful tool in identifying and understanding patterns of criminality over time [1]. While a previous section described the amount of time between discharging from DYS and the *first* recidivist act, this section will examine *all* recidivist acts *over time*. Nearly half of the youth in the analysis ( $n = 328$ ; 48.9%) committed two or fewer recidivist acts during the follow-up time period, and more than two thirds ( $n = 446$ ; 66.5%) committed three or fewer recidivist acts. The total number of recidivist acts committed by individual youth ranged from only 1 act ( $n = 174$ ) to a high of 44 acts ( $n = 1$ ), with a small sub-set of youth ( $n = 25$ ) committing 10 or more recidivist acts (see Table 7).

**Table 7: Total Number of Recidivist Acts**

Total Number of Recidivist Acts per Youth			
Number of Recidivist Acts	Number of Youth	Percent of Recidivists	Cumulative Percent
1	174	25.9	25.9
2	154	23.0	48.9
3	118	17.6	66.5
4	67	10.0	76.5
5	44	6.6	83.0
6	42	6.3	89.3
7	27	4.0	93.3
8	14	2.1	95.4
9	6	0.9	96.3
10	9	1.3	97.6
11	6	0.9	98.5
12	3	0.4	99.0
13	2	0.3	99.3
14	1	0.1	99.4
20	1	0.1	99.6
22	1	0.1	99.7
23	1	0.1	99.9
44	1	0.1	100
Total	671	100	

The life-course perspective typically examines the duration, timing, and ordering of significant life events (such as first delinquent act, first incarceration, first job, first marriage, etc.) and focuses on their consequences for later social development and pathways or trajectories of development [9]. Long-term analyses of life-course events and trajectories generally indicate a strong interconnection between significant childhood events and later experiences in adulthood [9]. In terms of development and behavior change, “social institutions and triggering life events that may modify trajectories include school, work, the military, marriage and parenthood” [9]. Within the field of criminology, the term desistance from criminal acts refers to the time at which individuals cease re-offending and generally resume a crime-free life. From a life-course perspective, this can be thought of as a change in trajectory along a deviant or delinquent course toward a more normative trajectory after experiencing certain meaningful life events. Typically, juvenile delinquency peaks during mid-adolescence when youth tend to engage in more high-risk behaviors, and tapers off when individuals reach their mid-20s. A small number of individuals will demonstrate a continuous pattern of re-offending over their life course, but most will eventually desist as a result of a variety of life events, including intervention, treatment, and increases in the social responsibilities of adulthood. Among the youth in the one-, two-, and three-year post-discharge cohorts, the average length of time to reach desistance from committing new recidivist acts occurred at just under 15 months ( $\mu = 14.97$ ). In other words, *most youth who discharged from DYS between FYs 2015-16 and 2017-18 committed 3 or fewer recidivist acts, and had ceased committing new recidivist acts by 15 months post-discharge, on average.*

As described in a previous section, the bulk of recidivists committed three or fewer recidivist acts during the follow-up period ( $n = 446$ ; 66.5%), with a handful of outliers who committed ten or more recidivist acts, including one individual who committed 44 recidivist acts. In order to create more comparable sub-groups for the analysis that follows, recidivists were divided into the following categories:

- Individuals who committed one recidivist act ( $n = 174$ )
- Individuals who committed two recidivist acts ( $n = 154$ )
- Individuals who committed three recidivist acts ( $n = 118$ )
- Individuals who committed between four and six recidivist acts ( $n = 153$ )
- Individuals who committed more than six recidivist acts ( $n = 72$ )

Among youth with only one recidivist act, the average length of time between discharge from DYS and their recidivist act was just under one year ( $\mu = 11.2$  months). As expected, the mean length of time from discharge to the last recidivist act increased among youth who had a larger total number of recidivist acts. Youth who committed a total of 2 recidivist acts experienced an average time to desistance of 12.2 months, roughly 1 month longer than youth with only 1 recidivist act. Among youth with a total number of 3 recidivist acts had an average time to desistance of 15.4 months, roughly 4.2 months longer than youth with only 1 recidivist act. The average time to desistance for youth who committed between 4 and 6 total recidivist acts was 18.6 months, roughly 7.4 months longer than youth with only 1 recidivist act. Finally, the small number ( $n = 72$ ) of youth who committed more than six recidivist acts had an average time to desistance of 21.7 months, roughly 10.5 months longer than youth with only 1 recidivist act (see Table 8).

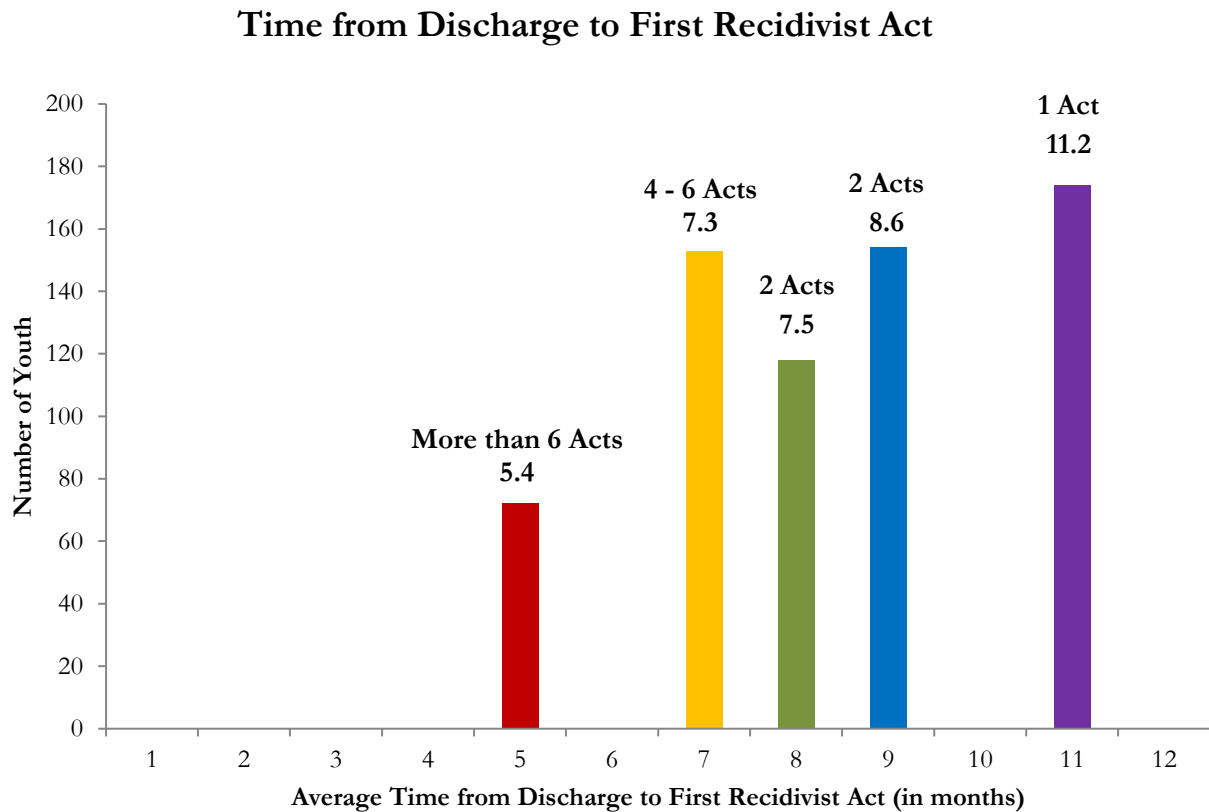
**Table 8: Time from Discharge to Last Recidivist Act (in categories)**

<b>Time To Last Recidivist Act in Months</b>			
<b>Total Number of Recidivist Acts</b>	<b>Mean Time from Discharge to Last Recidivist Act</b>	<b>Increase in Months Compared to Youth with Only One Recidivist Act</b>	<b>Number of Youth</b>
1	11.2	N/A	174
2	12.2	1.0	154
3	15.4	4.2	118
4 - 6	18.6	7.4	153
7 - 44	21.7	10.5	72

While some discharged youth do commit a new offense after leaving DYS, the vast majority of recidivists do not continue to commit new crimes over time, and do not have persistent observed future criminal involvement.

All recidivist acts captured between FY 2015-16 and FY 2017-18 were also examined in terms of the length of time from discharge to the first recidivist act utilizing the five categories of recidivists. Youth with a larger number of total recidivist acts tended to recidivate sooner compared to youth with fewer recidivist acts. Specifically, among the 174 youth who committed only 1 recidivist act, the first recidivist act occurred, on average, at 11.2 months post-discharge, (see Figure 25). Youth who committed 2 recidivist acts had a slightly shorter length of time from discharge to their first act at 8.6 months, roughly 2.6 months sooner than youth with just one recidivist act. Youth with 3 recidivist acts committed their first recidivist act at 7.5 months, approximately 3.7 months sooner than youth with a single recidivist act. For youth with 4 to 6 recidivist acts, their time to first recidivist act was 7.3 months, nearly 4 months sooner than youth who committed one recidivist act. Finally, youth with more than 6 recidivist acts had the shortest length of time from discharge to their first recidivist act at just 5.4 months, on average, nearly 6 months sooner than youth with a single recidivist act.

Figure 25: Time from Discharge to First Recidivist Act by Group



### Same-Day Recidivist Acts

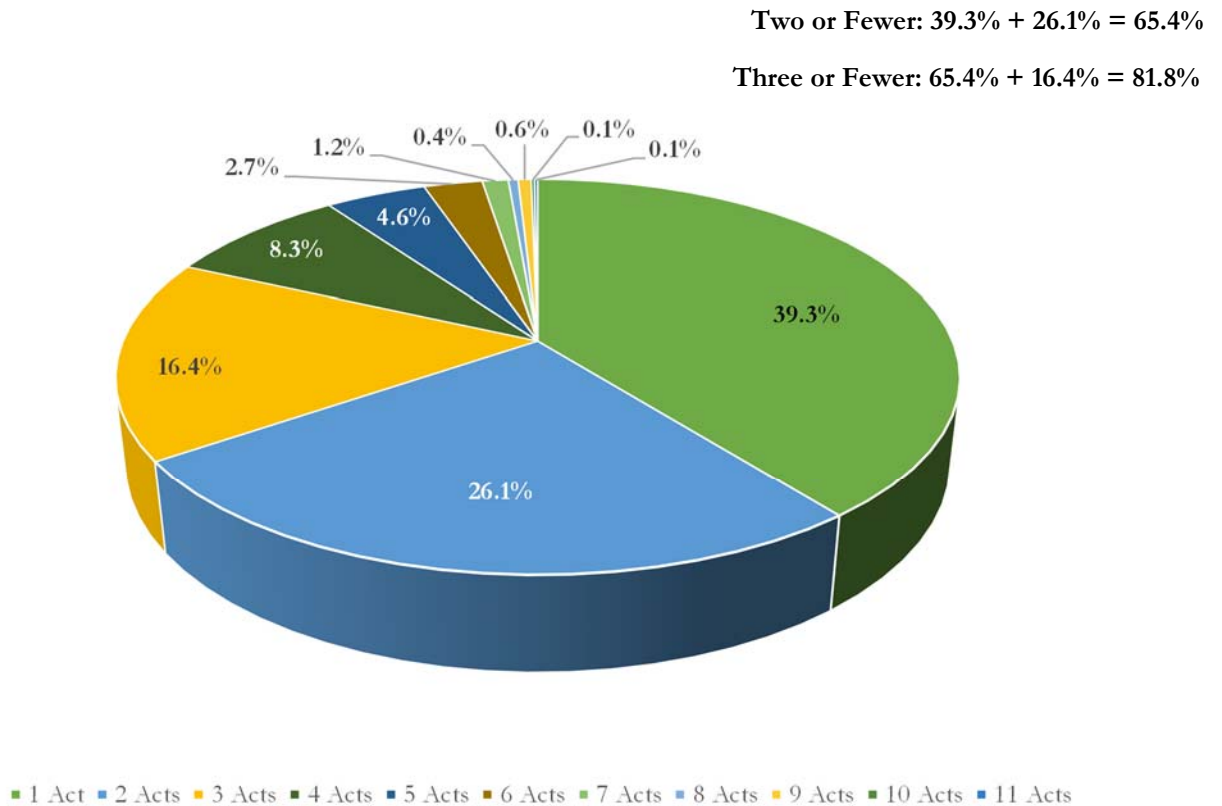
While it is not surprising that youth who commit a greater number of recidivist acts experience a longer time from discharge to desistance, an analysis of recidivist acts over time revealed that nearly 40% (39.3%;  $n = 264$ ) of youth with more than one recidivist act, *committed their last recidivist act on the same day as their first recidivist act*. Examples of situations where multiple recidivist acts occur on the same day could be a set of two separate offenses occurring on the same day (e.g.: trespassing in two separate locations), but is more frequently an additional charge for the same criminal event for which an individual is found guilty (e.g.: trespassing, possession of burglary tools, theft, and unlawful weapons possession can result in four separate adjudications or convictions for a single criminal event occurring on the same date). Recidivist acts sharing an offense date, known as same-day offenses, *were counted as individual and separate recidivist acts for each youth in the previous sections of this report*. The current section will examine the impact of same-day offenses as a measure of chronicity and patterns of criminal desistance.

Same-day offenses were identified for individual youth and were counted as a single recidivist act solely for the purposes of clarifying patterns of criminal activity in this section of the report. When same-day offenses were re-calculated for individual recidivists, the range for the total number of recidivist acts committed by individual youth was reduced to a low of 1 recidivist act ( $n = 264$ ) and a high of 11



recidivist acts ( $n = 1$ ). As with the analysis of desistance, a small number of youth committed the largest number of non-same-day recidivist acts, with 66 youth committing 5 or more recidivist acts. After identifying same-day offenses, nearly two-thirds of youth committed two or fewer recidivist acts ( $n = 439$ ; 65.4%), and the vast majority of youth ( $n = 549$ ; 81.8%) committed three or fewer recidivist acts during the follow up time period (see Figure 26).

**Figure 26: Percentage of Youth with Non-Same-Day Recidivist Acts**

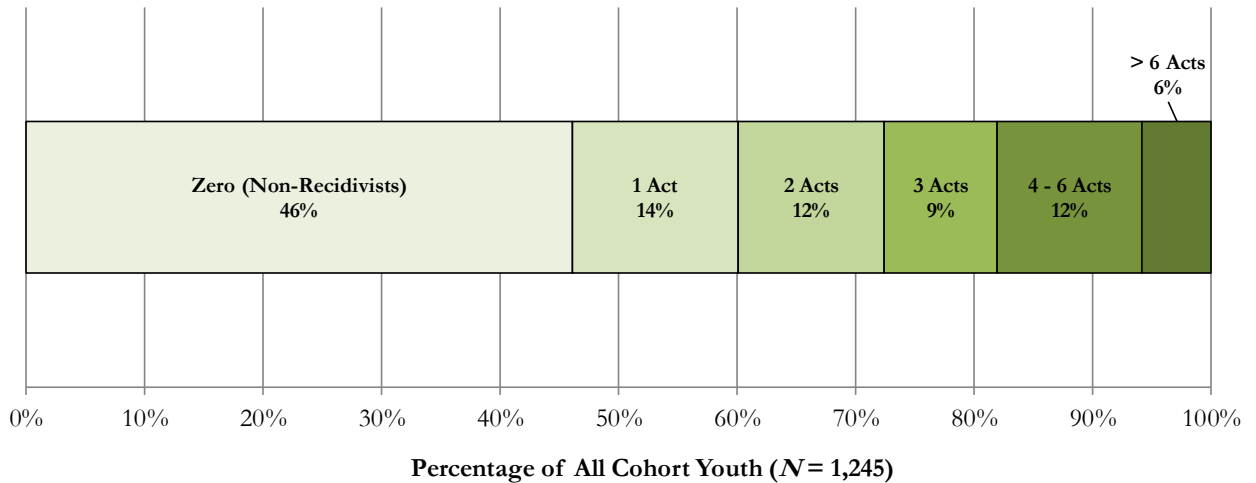


### Summary of the Analysis of Chronicity and Criminal Desistance

Youth who recidivated during the one-, two-, and three-year post-discharge follow-up time periods tended to desist from new recidivist acts over time, with an average length of time from discharge to criminal desistance of just under 15 months ( $\mu = 14.97$ ). The majority of youth ( $n = 446$ ; 66.5%) committed three or fewer total recidivist acts during the follow-up period. A very small percentage of recidivists appeared to demonstrate an observable pattern of re-offending consistently throughout the follow-up time period ( $n = 25$ ; 3.7%). When same-day offenses were examined, the vast majority ( $n = 549$ ; 81.8%) committed three or fewer recidivist acts before reaching criminal desistance. This pattern appears to support the theory of youth “aging out” of crime, where criminal involvement peaks in adolescence, and previously delinquent youth tend to desist from consistent criminal involvement as they mature and take on the increased responsibilities that come with adulthood, such as entering the workforce, getting married, and having children [1].

When examined as a whole, 46% of all youth who discharged from the Division over the three Fiscal Years of interest did not recidivate ( $n = 574$ ), with 26% of youth committing two or fewer recidivist acts (see Figure 27). In other words, although some youth did recidivate within the observed follow-up periods, most recidivists did so very quickly upon discharge, tended to commit misdemeanor property offenses rather than VRA crimes against persons, and ceased committing new crimes within 15 months, on average. Desisting from continued criminal activity over time is a finding that is consistent with the Life Course Perspective, and is well documented within criminological literature [1].

**Figure 27: Number of Recidivist Acts by Discharged Youth**



## NATIONAL COMPARISON

The following section provides a comparison of Colorado’s one-, two-, and three-year post-discharge juvenile recidivism rates to other states utilizing the same definition of recidivism and a similar research methodology in order to achieve a better understanding of how the State compares nationally. A 2013 study of how juvenile recidivism is measured and reported in the United States conducted by the Pew Charitable Trusts surveyed executive branch agencies responsible for juvenile state commitment facilities in each of the 50 states and the District of Columbia.<sup>xi</sup> The extensive Pew study examined current practices in the data collection, measurement, performance, and reporting of juvenile recidivism data. The results found that executive branch agencies within individual states utilize very different definitions and methods to study juvenile recidivism, and revealed a need for more policy-relevant data collection and reporting practices [10]. Approximately one in four states does not regularly collect and report juvenile recidivism data, and fewer than half use measures that provide a comprehensive picture of youth reoffending. In this context, a comprehensive measure of youth reoffending refers to comparing youth to previous cohorts, following youth through adult corrections and probation, and tracking youth beyond the juvenile parole period (e.g.: utilizing a longitudinal research design). Using these terms as defined by the Pew study, Colorado is one of few states conducting regular research with rigorous data collection, measurement, performance evaluation, and reporting of juvenile recidivism information.

More recently, the bipartisan Juvenile Justice Reform Act (JJRA) of 2018 was signed into law in December 2018. This bill reauthorized the Juvenile Justice and Delinquency Prevention Act (JJDP) for the first time since 2002, and included a requirement that the federal Office of Juvenile Justice and Delinquency Prevention (OJJDP) develop a comprehensive national system for measuring recidivism [13]. This forthcoming national system may include a universal definition and uniform method for data collection; however, individual states currently differ in a number of key factors in terms of defining, measuring, and reporting juvenile recidivism [10]. These differences can complicate between-states comparisons, as outlined in Table 9.

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<sup>xi</sup> It should be noted that states may have more than one executive branch agency reporting juvenile recidivism data, such as municipalities that serve youth exclusively in their communities, individual facilities or programs within a larger juvenile justice system, etc. In this way, the term “executive branch agencies” is not equivalent to individual states, nor are these terms mutually exclusive.

**Table 9: Recidivism Data Collection and Reporting Practices in Juvenile Corrections**

<b>Defining Recidivism</b>	
<b>Measures of Reoffending</b>	<b>Number of Agencies <sup>1, 2</sup></b>
Arrest	16
Adjudication or Conviction	28 <sup>3</sup>
Commitment (juvenile or adult)	25
<b>Length of Follow-Up</b>	
12 months	21 <sup>3</sup>
24 months	15 <sup>3</sup>
36 months	19 <sup>3</sup>
<b>Follow Offenders into the Adult System</b>	
	30 <sup>3</sup>
<b>Measuring Performance</b>	
Compare to the Previous Year Release Cohorts	32 <sup>3</sup>
Compare Rates by Offender Risk	21 <sup>3</sup>
<b>Reporting</b>	
At Least Annually	33 <sup>3</sup>
Results Released to All Three Branches of Government	21 <sup>3</sup>

<sup>1</sup>Executive branch agencies should not be confused with individual states

<sup>2</sup>Sub-categories are not mutually exclusive

<sup>3</sup>Indicates methods currently used in Colorado

## **Methods of National Comparison**

The comparison process involved an extensive review of currently available juvenile recidivism reports or publications that conveyed each state’s juvenile recidivism rates and research methodology. A state was considered ideal for comparison if it met the following conditions: 1) utilized a similar methodology to that of Colorado, 2) had a similar definition of a recidivist act, 3) reported on multiple years of recidivism, and 4) maintained consistency in how recidivism measures were reported in the most recent years. Data from youth who discharged in FY 2015-16 through FY 2017-18 were used in the national comparison.

## **Results of National Comparison**

Each state identified as a possibility for comparison varied in its definition of recidivism, the time period used to capture recidivism, and in the overall availability of data on recidivism rates. It is important to acknowledge that for the purposes of this analysis, definitions of recidivism were matched as closely as possible. Each juvenile correctional system, however, may be structured differently or have population-specific considerations which make it unique.

Table 10 represents the five other states that were identified as methodologically comparable to Colorado in terms of defining and measuring juvenile recidivism. The District of Columbia is not a state, but it regularly reports juvenile recidivism rates that were deemed to be comparable to those used in Colorado and was included with state-level data. Respective recidivism rates are reported by state in ascending order for youth who discharged in FY 2017-18. States highlighted in grey indicate data that is not currently available. Several states, including the District of Columbia, Florida, and Idaho, do not regularly release two- and three-year recidivism rates. Two states that report one-year post-discharge recidivism rates annually, Maryland and Virginia, did not have official rates available at the time this report was produced. It is anticipated that these one-year rates will become available for inclusion in future reports.

**Table 10: National Comparison of Recidivism Rates Over Time by Year of Discharge**

States with Comparable Juvenile Recidivism Measures					
Follow-Up Period	State Reporting	Year of Discharge			
		FY 2017-18	FY 2016-17	FY 2015-16	FY 2014-15
One Year	Idaho <sup>1,2</sup>	23.4%	29.0%	30.0%	23.0%
	District of Columbia <sup>3</sup>	32.2%	32.0%	36.0%	36.0%
	Colorado	41.1%	34.4%	31.5%	30.9%
	Florida <sup>3</sup>	45.0%	46.0%	45.0%	45.0%
	Maryland <sup>4</sup>	N/A	19.0%	20.3%	18.8%
	Virginia <sup>4</sup>	N/A	46.7%	41.6%	44.0%
Two Year	Maryland	29.4%	29.4%	30.0%	26.9%
	Virginia	47.8%	69.5%	65.0%	63.3%
	Colorado	55.7%	52.1%	49.2%	46.2%
	District of Columbia <sup>3</sup>	N/A	N/A	N/A	N/A
	Florida <sup>3</sup>	N/A	N/A	N/A	N/A
	Idaho <sup>1,2</sup>	N/A	N/A	N/A	N/A
Three Year	Maryland	34.5%	34.2%	34.5%	35.1%
	Virginia	47.2%	77.8%	74.2%	73.4%
	Colorado	63.8%	61.1%	55.2%	53.9%
	District of Columbia <sup>3</sup>	N/A	N/A	N/A	N/A
	Florida <sup>3</sup>	N/A	N/A	N/A	N/A
	Idaho <sup>1,2</sup>	N/A	54.0%	N/A	N/A

<sup>1</sup>Idaho typically only reports a one-year post-discharge recidivism rate; for youth who discharged in FY 2016-17, Idaho reported both one- and three-year rates.

<sup>2</sup>Idaho defines "discharge" as the start of parole; the recidivism measurement period includes parole.

<sup>3</sup>State only reports a one-year post discharge recidivism rate.

<sup>4</sup>The one-year post-discharge recidivism rates were not yet available for youth who discharged in FY 2017-18 at the time this report was produced.

When comparing the one-year post-discharge recidivism rates between comparable states, Colorado's rate (41.1%) is in the bottom half of the performance range (23.4% - 45.0%). The two states with rates lower than Colorado are Idaho (23.4%), and the District of Columbia (32.2%).

Last year, Colorado was the median one-year juvenile recidivism rate (34.4%) after Maryland (19.0%), Idaho (29.0%), and the District of Columbia (32.0%). It is important to note that Idaho currently defines "discharge" as the start of parole, as their juvenile parole services are handled at the county level rather than by the Idaho Department of Juvenile Corrections. Thus, youth on parole are considered "discharged" from their agency and are currently included in their recidivism data collection process. While this difference in when the one-year post-discharge recidivism follow-up period begins clearly differs from Colorado's, it was determined that there were sufficient similarities and adequate rigorous design elements to warrant keeping Idaho among the pool of states with similar research methodologies.

In addition, many states re-extract filings and adjudication or conviction records each year and re-match them to their list of youth who have discharged in a given FY. Re-matching records increases the accuracy of capturing any youth who had an open case without a finding of guilt at the time the original data was pulled, but has since been adjudicated or convicted, and correctly identifying these youth as recidivists in the appropriate FY. While this method is more accurate, it effectively re-calculates the one-, two-, and three-year rates produced in prior years. Thus, individual state data presented in Table 10 may not always match data reported in prior years, as they are obtained directly from each state's official data released and reported in the current year.

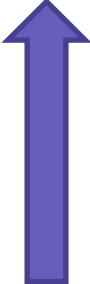
Data from all other states (not shown in Table 10) were sought out and examined when available, but were ultimately excluded because they could not be found; did not report a recidivism rate; or due to differences in their population, definition, or measurement of recidivism. For instance, Ohio defines a recidivist act as a "return to the Department of Youth Services (DYS) or incarcerated in the Ohio Department of Rehabilitation and Correction within one, two, and three years of release from a DHS correctional facility." Using this definition might result in a misinterpretation of the true comparability of this state's recidivism rate and Colorado's.

## RECOMMENDATIONS

### Recommendations Resulting from the Current Study

The results derived from this current study indicated that five characteristics were the most predictive of recidivism, for committed youth in Colorado. Those five recidivist characteristics are listed in order of their predictive influence in Table 11 that follows.

**Table 11: The Five Most Predictive Characteristics of Juvenile Recidivists**

Recidivist Characteristic		Predictive Influence	Odds Ratio	Static or Dynamic
Poor or Unsatisfactory Parole Rating at Discharge			2.09	Dynamic
Adjudications Prior to Commitment	3+ Adjudications		1.94	Static
	2+ Adjudications		1.60	
	1+ Adjudications		1.66	
Male Gender			1.87	Static
Escapes while Committed (One or More)			1.45	Dynamic
High Risk to Recidivate at Discharge		1.30	Dynamic	

Two of the five characteristics are static, and as such, are not subject to impact, change or improvement by the Division’s efforts (adjudications prior to commitment; male gender). Conversely, three factors are dynamic and hold the potential for improvement, if targeted by Division services, programming, and initiatives. These areas hold great potential for impacting recidivism rates and deserve special attention.

*What can the Division do, or what is already being done, in relation to these three areas?*

*Where can the greatest “bang for the buck” be made as it relates to potential recidivism reduction?*

#### Poor or Unsatisfactory Parole Rating at Discharge

The results of this study indicated that youth with a poor or unsatisfactory parole rating at time of discharge were more than twice as likely to recidivate as youth with a satisfactory to excellent parole rating. This clearly points to the importance of the parole transition period and the overall community re-integration process. Successful and smooth community re-entry is key to preventing recidivism. The Division already operates under the notion that “Transition planning begins at Assessment,” and strives to identify, invite and maintain the participation of a multi-disciplinary team of professionals and other important members in the parole planning process: the youth, their family, clinical staff, education staff,

client manager/parole officer, parole board, community ties, mentors, program staff, etc. This proactive approach puts parole planning front and center, as a priority for all parties involved.

Another important element to highlight is the Division's efforts over the last two fiscal years to implement a more advanced Parole Practice Framework that allows for targeted responses (e.g.: services, interventions, incentives and privileges) to youth behavior exhibited while on parole. This allows for monitoring youth success and compliance while on parole, and includes a menu of responses that coincide with both violation behavior and positive behavior. To guide Parole Officers in the use of graduated responses during community supervision, examples of potential behaviors and responses have been created. Behaviors and responses are categorized together, with positive behavior eliciting positive responses and violation behavior eliciting violation responses. The Parole Practice framework standardizes the expectations of parolee behavior and conforms to best practices for long-term behavior change.

How a youth adjusts to living in the community has been a consistent predictor of recidivism for nearly two decades. The results of many years of analyses, including the current analysis, have pointed to the importance of this parole adjustment period (and rating thereof) in predicting future recidivism. Currently, the Division's client managers/parole officers assign this rating to youth upon discharge. If a similar rating system could be implemented earlier in the parole process (perhaps mid-way through parole, or even 30-60 days into parole), youth flagged as "adjusting" poor or unsatisfactorily to the parole period could potentially have certain services bolstered or new services put in place to improve the re-entry process. These additional services or interventions may impact future discharge ratings and ultimately, the likelihood of future offending. In addition, developing a more nuanced measure that delineates the specific areas on which a youth receives an "Unsatisfactory" or "Poor" rating and which resources, programs, and services were made available, would create insight into consistent areas of concern for youth discharging from parole.

As of late, DYS was making headway in terms of expanding the services available to youth on parole, to include day reporting centers and mentorship programs. While funds were initially granted to DYS by the legislature to implement these new programs, recent budget shortfalls have witnessed those funds reversed. When the economy recovers from the pandemic, the Division is optimistic these programs will be refunded.

### **Escapes While Committed (One or More)**

Youth who escape from residential placement or abscond from parole are 50% more likely to recidivate than youth who do not escape or abscond while committed to the Division. Strategies to prevent escape has been a priority of DYS and its partners for many years. Most recently, DYS implemented security improvements at the secure youth centers, including adding anti-climb mesh to secure perimeter fences, installing more lighting, adding additional security to glass windows, scheduling regular perimeter sweeps by staff to check fencing, focused efforts on reducing the entry of contraband, along with other improvements. Staff are also mindful, during the initial assessment process, to assess a youth's future "run risk." This occurs early-on in the youth's commitment (within the first 30 days), and when



necessary prompts the development of an escape prevention plan that the youth, youth's family, and staff agree to uphold. Additionally, the Division closely monitors contracted residential providers in regard to the number and rate of placement "walkaways." Most of these placements are not secure and staff cannot physically prevent these youth from leaving the premises. These providers have also developed formal walkaway prevention plans that are revised regularly, and modified when necessary with walkaway prevention strategies. Finally, while escape *prevention* is key as it relates to impacting recidivism, the Division also contracts for apprehension services to quickly locate and apprehend youth who have escaped from secure placement, walked away from non-secure programs, or absconded from parole supervision. The more attention and emphasis the Division and its partners can dedicate to preventing escapes will prove impactful for decreasing future recidivist behavior.

### **High Risk to Recidivate at Discharge**

Risk to recidivate is assessed and reassessed throughout the youth's commitment to the Division. While the vast majority of youth are High Risk at time of assessment (~90%), this percentage declines to 60-70% of youth by the time parole begins. As Division supervision ends when a youth discharges, youth assessed as High Risk at time of discharge are no longer reachable. However, given that the Division is able to identify High Risk youth a step earlier, at the time of initial parole, these youth could be intentionally targeted for more intensive re-entry services, with funding specifically reserved and directed toward this smaller High Risk parolee population.

The mandatory minimum length of parole for committed youth is six months; however, the Juvenile Parole Board often extends this transition period for youth, at their discretion and authority. As such, the majority of youth serve 6-9 months on parole, which provides ample time for the provision of strategic, directed, and intensified parole services to have an impact on recidivism risk. Finally, if overall risk could be decreased, even for a select amount of High Risk parolees, study results indicate the Division could likely see positive declines in recidivism rates as well.

## **Long-Standing Recommendations**

### **UNIFIED STATEWIDE DATA SYSTEMS**

The single largest barrier to in-depth, criminological research surrounding juvenile recidivism in Colorado is the lack of data systems that can “talk” to one another. The current process has been as streamlined and automated as the data allow, but still relies on months of “hand matching” court records to youth in the discharge cohort. Infrastructure that allows for unique identifiers or links between DYS, Judicial (adult and juvenile probation), DCJ (diversion programs), DOC, etc. would greatly assist in the process, allowing for the bulk of time spent producing the report to be focused on the actual analysis rather than on the exhaustive data cleaning and matching process.

### **DISCHARGE ASSESSMENTS**

When youth are committed to DYS, they undergo a battery of assessments. These assessments help to formulate the youth’s treatment plan while they are committed and serve their parole sentences. It is recommended that the Division also re-assess youth on more of these evaluations so that treatment progress can be measured, particularly in light of the chronicity and criminal desistance analysis which indicated that most youth who commit two or fewer recidivist acts do so within the first year, post-discharge. A greater battery of assessments administered immediately prior to discharge might flesh-out or otherwise identify factors that can influence future recidivism. Currently, the CJRA is the only re-assessment given at discharge.

### **IMPLEMENT EVIDENCE-BASED TREATMENT PROGRAMS WITH FIDELITY**

One key component to increasing youth success after discharge is matching the appropriate treatment, services, or interventions to youth during commitment based on individual criminogenic needs. Identifying and implementing evidence-based or evidence-informed treatment programs administered with fidelity by certified staff and at the recommended dosage is a vital step toward increasing the chances for youth success and in reducing recidivism. The ability to measure the effects of evidence-based programs over time would be a valuable contribution to the body of knowledge surrounding juvenile recidivism.

## **COMMUNITY-BASED PREVENTION SERVICES FOR AT-RISK YOUTH (PRIOR TO AND FOLLOWING DYS “REACH”)**

Many committed youth come to DYS with a host of risk factors for future criminality. Some identified risk factors for delinquency, violence, and illicit substance use include: family disorganization, community disorganization, poverty, lack of attachment to school or pro-social peers, a family history of system involvement, etc. In addition, most youth return to their families and communities upon discharging from DYS, where these risk factors frequently return, or continue, unaddressed. Although the Division incorporates family and pro-social community members in each youth’s treatment, parole transition, and discharge plans, more could be achieved at a Statewide or community level using a community-based prevention model to bolster both front-end (prior to CYDC<sup>xiii</sup> and DYS influence) and back-end (after DYS influence) services for at-risk youth and thus reduce the number of juvenile offenders and recidivists.

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<sup>xiii</sup> Colorado Youth Detention Continuum.

### **The True Recidivism Rate is Unknown**

Recidivism is defined by Colorado's youth services system as a new felony/misdemeanor conviction/adjudication for an offense committed within a specified follow-up time period. Given this definition, recidivism rates are, at best, merely an estimate. The rates reported are as close to the true rate as is currently possible; however, they are still an underestimate. Several challenges exist that reduce the accuracy of these estimates.

#### *1) Offenses Committed in Other States Not Captured*

This study only uses data for offenses committed within the state of Colorado; therefore, if a youth commits an offense in another state, it remains undetected and is not included in the analysis. While it would be more accurate to include offenses committed in other states, obtaining highly confidential data annually from 49 states who may or may not have regular access to them is simply not possible at this time.

#### *2) Offenses While on Parole Status are Not Considered Recidivist Offenses*

Offenses committed while a youth is on parole status are not considered to be recidivist acts because they did not occur *after the youth fully discharged from the Division's supervision*. While a youth is on parole status, he/she remains under the supervision of the Division, and the recidivism clock does not start until all DYS supervision has ended. Offenses committed on parole are considered to be pre-discharge recidivism. Pre-discharge recidivism rates are calculated internally, but are not presented in the current report.

#### *3) Time-at-Risk (actual increases)*

Time-at-risk increases when follow-up periods are extended (such as the two- and three-year follow-up periods). Increased time-at-risk results in "net widening," during which more re-offending behavior is detected, and results in increased recidivism rates. For example, in a one-year follow-up period, a youth has 365 days at-risk, or one year's opportunity to re-offend. Similarly, in a two-year follow-up period, that same youth has twice as much time-at-risk, thus doubling the opportunity to re-offend (730 days). It has been demonstrated that with increased time-at-risk, an increased number of youth recidivate. Further, as time passes and youth gain a longer distance from the services and treatment they received during their commitment to DYS, the less of an impact those protective factors have compared to more current peer or social influences.

#### *4) Judicial Process Delays Erroneously Decrease Recidivism Rates*

A recidivist act, as described in the methodology section of this analysis, is determined by a guilty finding leading to a new adjudication or conviction. The Judicial process involved in obtaining a guilty finding includes committing an offense, being arrested, having the offense filed in court, various court proceedings (hearings, trials, etc.) and then being found guilty by the court. This process can take a substantial amount of time, and due to several possible delays, many filings remain open when the data used to create this report is extracted from the Judicial database. This means that a youth may ultimately be guilty of a new offense but the verdict has not been determined at the time when the data is extracted for analysis. Findings (i.e., guilty, not guilty) can come days, months, or even years following a filing, particularly among more serious offenses. Youth who had open cases with missing findings during the one-year follow-up period are not considered to be recidivists---as the definition of recidivism is a new adjudication or conviction, and a finding is necessary to determine whether or not a youth recidivated. Although these youth are not identified as recidivists in the current report, Judicial and DCC filings data are re-matched to each youth in the Analysis Cohort each year, and any cases that have closed with a finding of guilt will be identified and attributed to these youth in the corresponding follow-up period.

For the current report, pulling the court data in September rather than July allowed for more time to pass after the close of the FY, which resulted in more time for open cases to close before beginning the analysis. When data is more complete, more adjudications and convictions are captured, and this in turn increases recidivism rates.

## APPENDIX A – Works Cited

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## APPENDIX B – Non-Significant Findings – Analysis Cohort

### NON-SIGNIFICANT DIFFERENCES BETWEEN RECIDIVISTS AND NON-RECIDIVISTS

	Non recidivists		Recidivists		P-value <sup>1</sup>	Total
	n	%	n	%		
<b>Age at Discharge</b>	19.1		19.1		0.41	19.1
<b>Age at Commitment</b>	16.8		16.8		0.50	16.8
<b>Length of Service Total Residential Placements</b>	19.8		20.4		0.25	20.0
<b>Length of Service Parole<sup>2</sup></b>						
Less than 6 Months	211	31.5%	163	33.5%	0.49	32.4%
More than 6 Months	458	68.5%	324	66.5%		67.6%
<b>Length of Service State Secure Residential Placements<sup>3</sup></b>	8.8		9.8		0.79	9.2
<b>Ethnicity Recoded into 4 Categories</b>						
Black	136	18.7%	105	20.3%	0.57	19.4%
Hispanic/Latino	297	40.9%	214	41.3%		41.0%
Other	10	1.4%	11	2.1%		1.7%
White	284	39.1%	188	36.3%		37.9%
<b>Minority/Non-Minority Ethnicity</b>						
White	284	39.1%	188	36.3%	0.32	37.9%
Non-White	443	60.9%	330	63.7%		62.1%
<b>DYC Committing Offense Charge</b>						
Felony	428	58.9%	285	55.0%	0.18	57.3%
Misdemeanor	299	41.1%	233	45.0%		42.7%
<b>Region</b>						
Central	274	37.7%	201	38.8%	0.30	38.2%
Northeast	211	29.0%	158	30.5%		29.6%
Southern	170	23.4%	99	19.1%		21.6%
Western	72	9.9%	60	11.6%		10.6%
<b>One or More Re-Commitments</b>						
No Re-Commitments	514	70.7%	351	67.8%	0.27	69.5%
One or More Re-Commitments	213	29.3%	167	32.2%		30.5%
<b>Mental Health<sup>4</sup></b>						
No formal mental health intervention required at commitment	371	51.3%	270	52.5%	0.67	51.8%
Formal mental health intervention required at commitment	352	48.7%	244	47.5%		48.2%
<b>Co-Occurring Disorder<sup>4</sup></b>						
No co-occurring disorder at commitment	413	57.7%	288	56.4%	0.65	57.1%
Co-occurring disorder at commitment	303	42.3%	223	43.6%		42.9%

<sup>1</sup>p < 0.05 (indicates a statistically significant difference between recidivists and non-recidivists).

<sup>2</sup>Only youth who actually went on parole were included in the analysis. Youth may discharge directly to adult corrections, turn 21 prior to parole being granted, be deported, have their sentences terminated by the court, etc. A total of 1,156 youth went on

<sup>3</sup>Only youth who had a state secure residential placement. A total of 1,238 unique youth spent time in a state secure residential placement.

<sup>4</sup>Only Valid CCAR Overall Problem Severity scores administered at assessment are included in the analysis. A total of 1,227 youth had a valid score at assessment.

Additional variables were examined for analysis, but were not tested as the distribution of data between groups was too unequal to continue. These variables included, *but were not limited to*: prior number of out-of-home placements, number of parole suspensions, placement at discharge, and sex offender status.

CRIMES THAT FALL UNDER COLORADO'S VICTIM RIGHTS ACT

- Murder in the first degree, in violation of section 18-3-102;
- Murder in the second degree, in violation of section 18-3-103;
- Manslaughter, in violation of section 18-3-104;
- Criminally negligent homicide, in violation of section 18-3-105;
- Vehicular homicide, in violation of section 18-3-106;
- Assault in the first degree, in violation of section 18-3-202;
- Assault in the second degree, in violation of section 18-3-203;
- Assault in the third degree, in violation of section 18-3-204;
- Vehicular assault, in violation of section 18-3-205;
- Menacing, in violation of section 18-3-206;
- First degree kidnapping, in violation of section 18-3-301;
- Second degree kidnapping, in violation of section 18-3-302;
- (I) Sexual assault, in violation of section 18-3-402;
- (II) Sexual assault in the first degree, in violation of section 18-3-402, as it existed prior to July 1, 2000;
- Sexual assault in the second degree, in violation of section 18-3-403, as it existed prior to July 1, 2000;
- (I) Unlawful sexual contact, in violation of section 18-3-404; or
- (II) Sexual assault in the third degree, in violation of section 18-3-404, as it existed prior to July 1, 2000;
- Sexual assault on a child, in violation of section 18-3-405;
- Sexual assault on a child by one in a position of trust, in violation of section 18-3-405.3;
- Sexual assault on a client by a psychotherapist, in violation of section 18-3-405.5;
- Invasion of privacy for sexual gratification, in violation of section 18-3-405.6;
- Robbery, in violation of section 18-4-301;
- Aggravated robbery, in violation of section 18-4-302;
- Aggravated robbery of controlled substances, in violation of section 18-4-303;
- Incest, in violation of section 18-6-301;
- Aggravated incest, in violation of section 18-6-302;
- Child abuse, in violation of section 18-6-401;
- Sexual exploitation of children, in violation of section 18-6-403;
- Crimes against at-risk adults or at-risk juveniles, in violation of section 18-6.5-103;

Last Updated: January 2018



- Any crime identified by law enforcement prior to the filing of charges as domestic violence, as defined in section 18-6-800.3;
- An act identified by a district attorney in a formal criminal charge as domestic violence, as defined in section 18-6-800.3;
- Any crime, the underlying factual basis of which has been found by the court on the record to include an act of domestic violence, as defined in section 18-6-800.3, pursuant to section 18-6-801;
- Stalking, in violation of section 18-3-602 or 18-9-111;
- A bias-motivated crime, in violation of section 18-9-121;
- Careless driving, in violation of section 42-4-1402, that results in the death of another person;
- Failure to stop at the scene of an accident, in violation of section 42-4-1601, where the accident results in the death or serious bodily injury of another person;
- Any criminal attempt, as described in section 18-2-101, any conspiracy, as described in section 18-2-201, any criminal solicitation, as described in section 18-2-301, and any accessory to a crime, as described in section 18-8-105, involving any of the crimes specified in 24-4.1-302(1);
- Intimidating a witness or a victim, in violation of section 18-8-704;
- Retaliation against a witness or victim, in violation of section 18-8-706, Retaliation against a judge, in violation of section 18-8-615, Retaliation against a juror, in violation of section 18-8-706.5;
- Retaliation against a prosecutor, in violation of section 18-8-616;
- Aggravated intimidation of a witness or a victim, in violation of section 18-8-705;
- Tampering with a witness or victim, in violation of section 18-8-707;
- Indecent exposure, in violation of section 18-7-302; or
- Violation of a protection order issued under section 18-1-1001, against a person charged with committing sexual assault, in violation of section 18-3-402, sexual assault on a child, in violation of section 18-3-405, sexual assault on a child by one in a position of trust, in violation of section 18-3-405.3, sexual assault on a client by a psychotherapist, in violation of section 18-3-405.5, or stalking in violation of section 18-3-602;
- Human trafficking, in violation of section 18-3-503 or 18-3-504;
- First degree burglary, in violation of section 18-4-202;
- Child prostitution, in violation of section 18-7-40; Soliciting for child prostitution, in violation of section 18-7-402; Procurement of a child for sexual exploitation, in violation of section 18-6-404; Pimping of a child, in violation of section 18-7-405; Inducement of child prostitution, in violation of section 18-7-405.5; or Patronizing a prostituted child, in violation of section 18-7-406.
- Posting a private image for harassment in violation of section 18-7-107 or posting a private image for pecuniary gain in violation of section 18-7-108;

**Last Updated: January 2018**

**Any questions concerning the data presented in this report may be directed to:**

Data Management & Analysis

Division of Youth Services

4141 South Julian Way

Denver, CO 80236

or

[Sally.Hill@state.co.us](mailto:Sally.Hill@state.co.us)

Colorado Department of Human Services

Office of Children, Youth & Families

Division of Youth Services

<https://www.colorado.gov/pacific/cdhs/publications-reports>